INTERIOR DESIGN

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NOVEMBER 1988

IBD/INTERIOR DESIGN COMPETITION WINNERS

STUDENT CENTER BY KIERAN, TIMBERLAKE & HARRIS
TILE EXHIBITIONS BY ROGER FERRI AND JOHN SALADINO

A CAHNERS PUBLICATION

INTERIOR DESIGN

VOLUME 59

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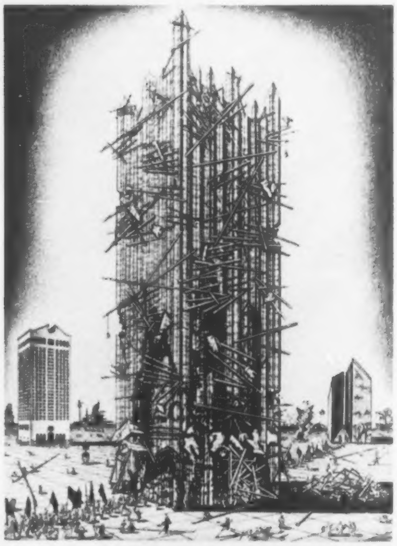

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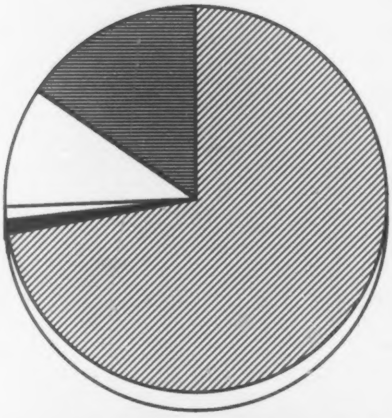

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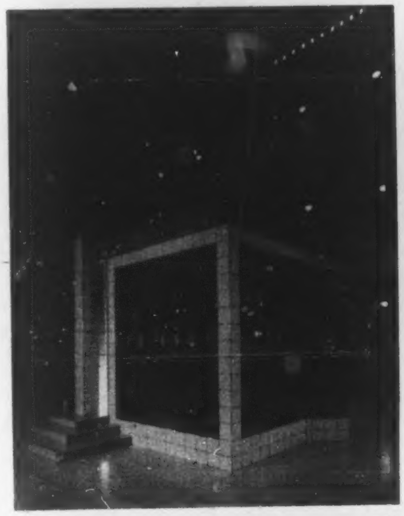

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Our Universe

How many interior designers and design firms are really out there? How do they operate, what do they specify? After years of guesswork, a new study sponsored by* Interior Design *magazine gives the answers.

Over the last six months a groundbreaking survey of the profession has been under way. Conducted by the respected firm of Yankelovich Clancy Shulman for *Interior Design* magazine, it was undertaken in two phases. The first, last spring, determined the size and composition of the whole universe of interior designers. The second, recently completed, obtained a more detailed perspective on professional activities. The first contacted more than 1,700 firms for brief telephone interviews; the second singled out nearly 500 designers for personal interviews averaging an hour each. The result is a body of information about the whole profession—residential as well as contract fields—that has never before been substantiated. We present highlights here for the interest and use of our readers.

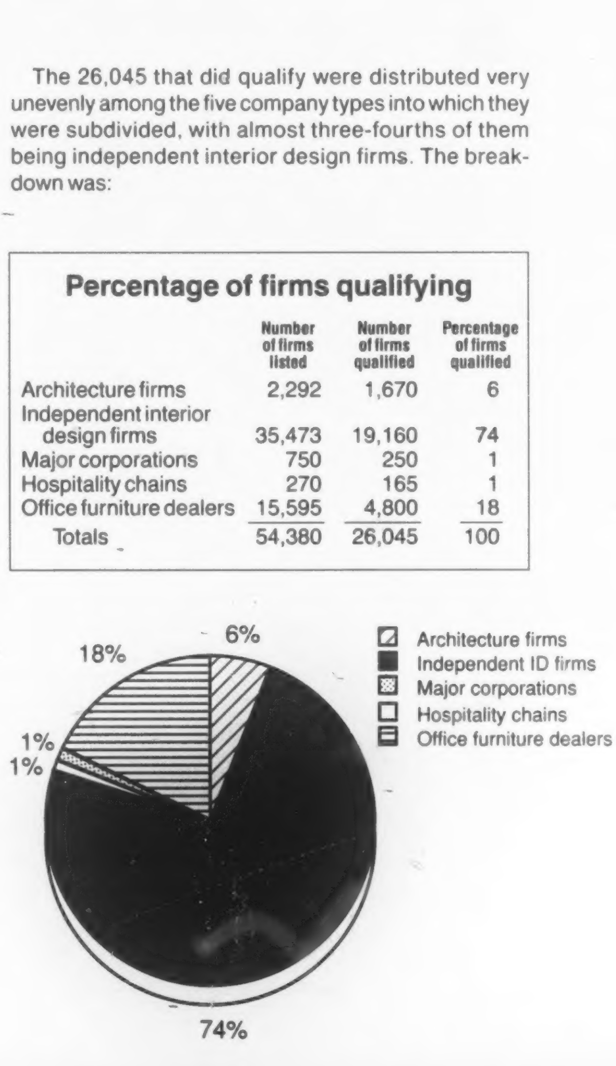
Universe Size

The first aim of the study was to determine how many U.S. firms employ at least one interior designer selecting, specifying, recommending or purchasing products for interior design projects. For some types of firms, there were also other criteria to preclude "double counting." Of more than 54,000* firms considered it was determined that slightly less than half qualified for inclusion—that is they have at least one interior designer on staff.

The 26,045 that did qualify were distributed very unevenly among the five company types into which they were subdivided, with almost three-fourths of them being independent interior design firms. The breakdown was:

Percentage of firms qualifying

	Number of firms listed	Number of firms qualified	Percentage of firms qualified
Architecture firms	2,292	1,670	6
Independent interior design firms	35,473	19,160	74
Major corporations	750	250	1
Hospitality chains	270	165	1
Office furniture dealers	15,595	4,800	18
Totals	54,380	26,045	100



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* *Independent interior design firms and office furniture dealers were obtained from all yellow pages in the continental U.S.; architecture firms were obtained from the AIA list of firms that have an interior designer on staff; major corporations contacted were the Fortune 500 industrial companies and 250 service companies; chain hospitality firms were generated from the* Restaurants & Institutions *list—excluding governmental and military listings.*

Value of Products Specified

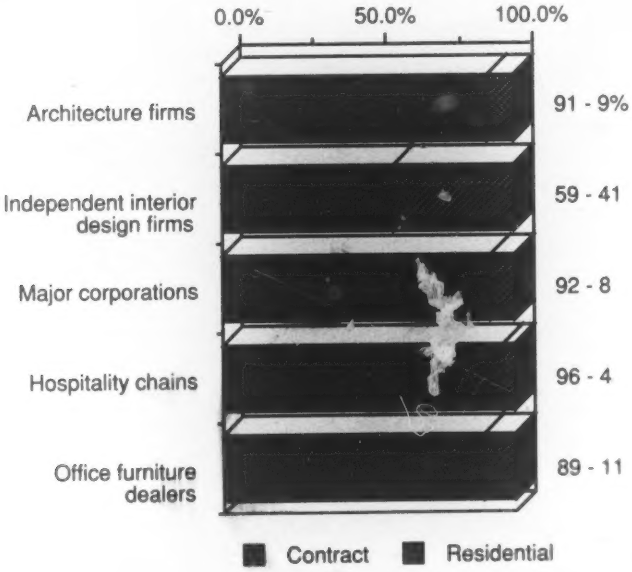
To establish the total value per year of specified interior design products, an average was established for each of the five firm types, and this was multiplied by the total number of qualifying companies. These averages varied widely, with chain hospitality firms, although few in number, specifying an average of nearly $6 million each, and with independent interior design firms, at the other end of the scale, specifying less than $1 million each. In arriving at the $1.7 million average for office furniture dealers, care was taken to include only merchandise specifications originated by the dealers themselves. The total picture is:

Value of products specified

	Number of firms	Average ($ millions)	Total ($ millions)	Share of market (%)
Architecture firms	1,670	3.52	5,880	19
Independent interior design firms	19,160	.79	15,135	49
Major corporations	250	3.06	765	3
Hospitality chains	165	5.97	985	3
Office furniture dealers	4,800	1.69	8,065	26
Totals	26,045	1.19 (average)	30,830	100

Job Mix

We were also interested in learning the proportion of contract and residential products specified/purchased by each firm type in terms of total dollar volume.



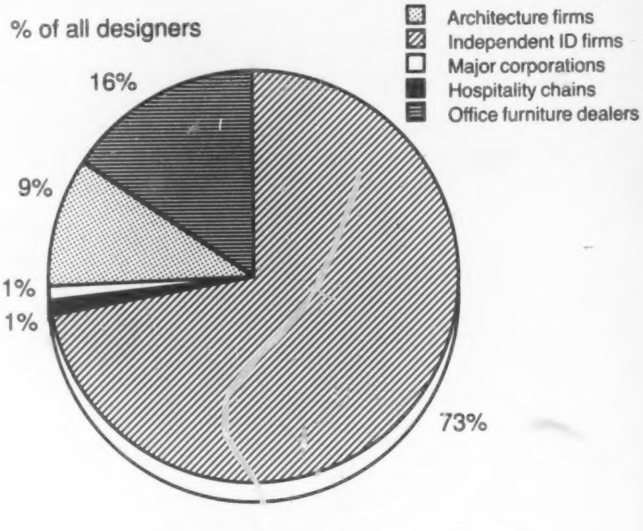
As for the dollar volume specified in each category, the study produced these results:

Dollar volume specified

	Total volume ($ million)	Contract volume ($ million)	Residential volume ($ million)
Architecture firms	5,880	5,290	590
Independent interior design firms	15,135	8,930	6,205
Major corporations	765	705	60
Hospitality chains	985	945	40
Office furniture dealers	8,065	7,180	885
Totals	30,830	23,050	7,780

Designer Population

Other questions often asked are how many interior designers there are and how they are distributed. Our study shows a total of 75,300 interior designers employed by all the qualified firms, distributed as follows:



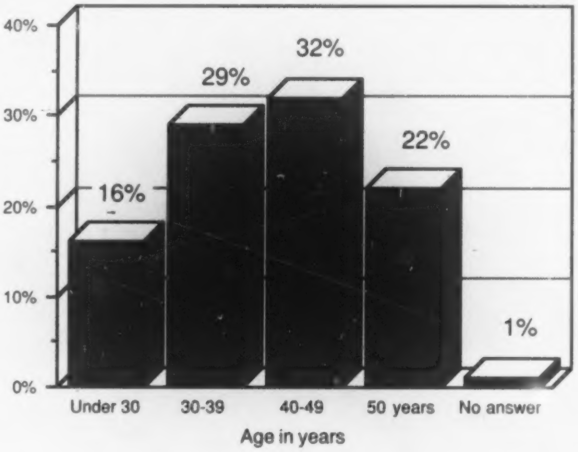
Designer population

	Average number designers per firm	Total designers	% of all designers
Architecture firms	4.20	7,000	9
Independent interior design firms	2.86	54,800	73
Major corporations	4.20	1,050	1
Hospitality chains	3.89	650	1
Office furniture dealers	2.44	11,800	16
Totals	2.89 (average)	75,300	100

Designer Profile

For the remaining survey questions, dependent on hour-long in-person discussions with designers, the Yankelovich team worked with a random sample of designers who work for firms that specify $200,000 or more per year in design products. In an effort to contact the most knowledgeable designers, senior-level designers were interviewed. The 17,780 firms represented closely resembled the larger group surveyed last spring in matters of firm type, job mix, etc.

One area of study was age. The total from all types of firms had this profile:

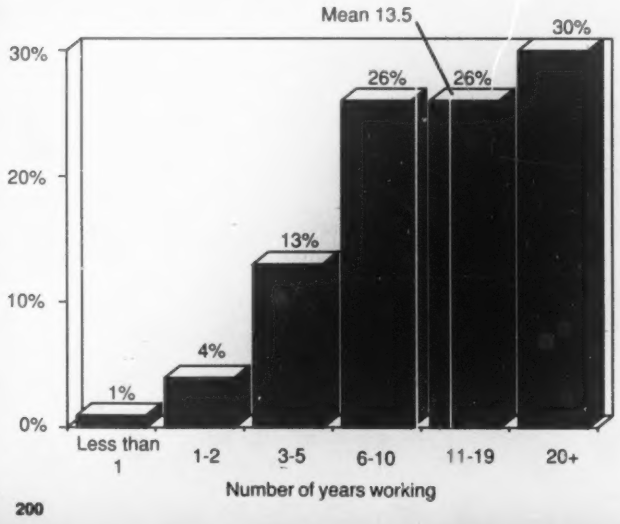


As to sex, the makeup of our profession is split almost exactly in half, 52 percent of practicing interior designers being women, 48 percent men.

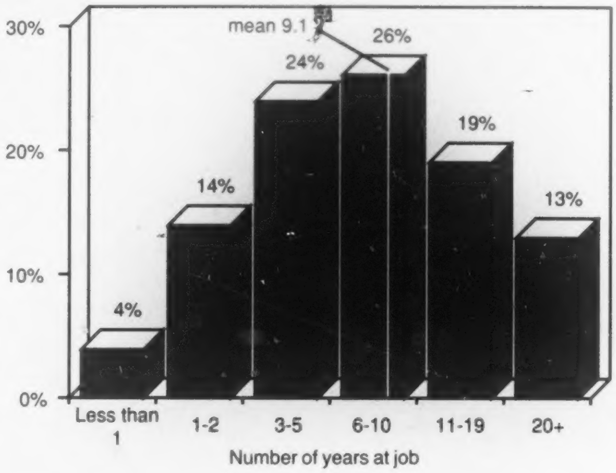
Their educational qualifications are impressive, 69 percent of them being college graduates and 27 percent earning at least some graduate school credits. The most commonly earned degree was in interior design (40 percent), followed by degrees in fine arts (19 percent), liberal arts (18 percent), business administration (11 percent) and architecture (8 percent).

Career Length

How long have these designers been at work in their profession? Here are the percentages:



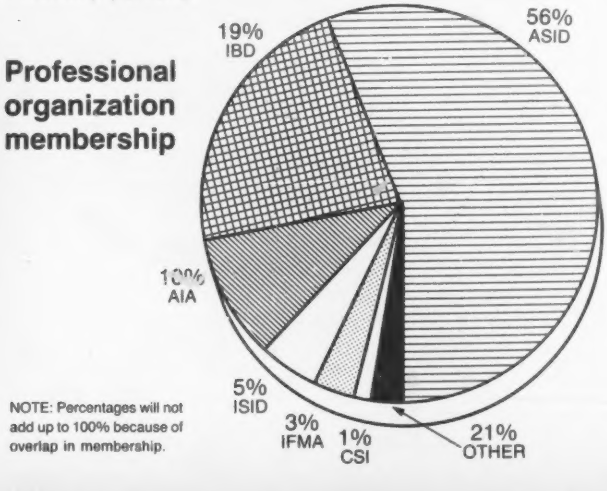
Giving us a mean working career of 13.5 years. And how frequently do these designers change jobs? To suggest the answer, we surveyed the length of time they have been with their present firms. In this case, the mean employment time was 9.1 years, and the breakdown was as follows:



Membership

Half the designers (49 percent) were found to belong to a professional organization, with membership rates being highest (74 percent) in architectural firms. Among those who do belong to one or more organizations, only half (56 percent) belong to the American Society of Interior Designers (ASID), by far the leading organization represented, according to membership. About a fifth (19 percent) belong to the Institute of Business Designers (IBD), and half that number (10 percent) to the American Institute of Architects (AIA). Among designers who are with independent interior design firms, the strength of ASID membership was even greater (61 percent), and, as might be expected, AIA membership soared (to 48 percent) among designers working for architecture firms.

Among organizations with smaller memberships were the International Society of Interior Designers (5 percent), the International Facility Management Association (3 percent), and the Contruction Specifications Institute (1 percent).


Professional organization membership

NOTE: Percentages will not add up to 100% because of overlap in membership.

For the first time ever, a comprehensive survey of the whole profession, residential designers as well as contract . . .

Trends Seen

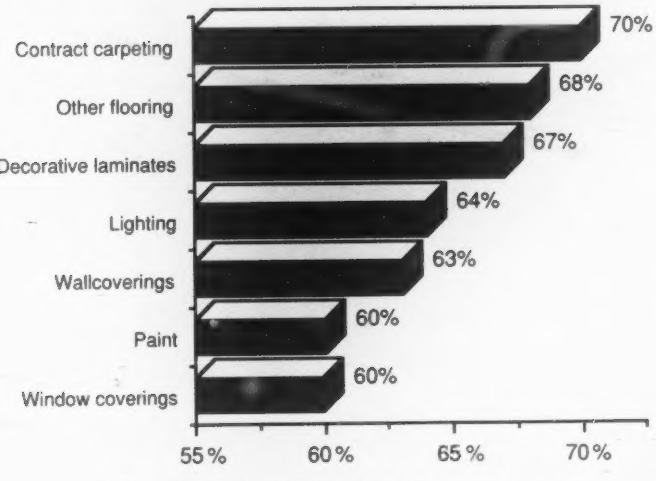
What major trends do these designers see? This experienced group, uniquely qualified as observers of the profession, were asked which changes taking place over the last five years most affected their work. Out of nine trends studied, four were seen as having major impact: the increasing use of office automation (55 percent); the growing acceptance of open plan office space (53 percent); the increase of renovation and "retrofit" projects over those in new construction (51 percent); and the planning of larger or more luxurious kitchens and/or hospitality centers (49 percent).

New Work vs. Renovation

Considering more specifically the trend towards renovation projects, we asked what the actual figures currently are. Of contract installations, 57 percent, measured in dollar volume, are renovations; of residential work, the figure is 58 percent.

Use of Dealers

We were also curious about the role of dealers today in the profession. Almost all designers (97 percent), our survey showed, use dealers or distributors for at least some products. They were most likely to use them when selecting products in the following areas:

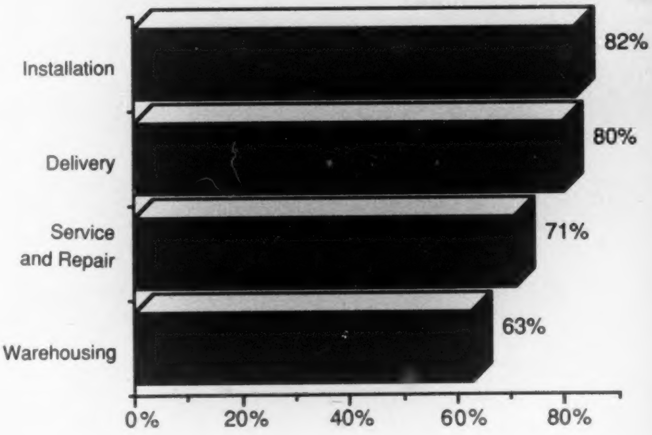


Products purchased through dealers

Designers as Dealers

A related question asked the designers to what extent they think their firms have begun to provide services that traditionally were offered by dealers or distributors. (For this question, we excluded designers working for dealers.) Almost one in five designers (22 percent) say their firms have asssumed functions associated with dealers "to a great extent," and another one in three (35 percent), say their firms have done so "to some extent." The largest firms, the survey showed, are the least likely to offer such services.

The dealer services now most frequently performed by designers are:



Dealer services performed by designers

However, the firms insist that, when ordering office furniture through a dealer, it is still the design firm—not the dealer—that specifies the brand or manufacturer.

Other Questions

Interior Design commisioned the Yankelovich study as a service for the profession and believes that the results published above are of interest to many readers. We asked other questions that were geared specifically to our own publication policies and that will benefit the profession less directly, through magazine pages more closely focused on reader needs and concerns. Just one detail from these more personal matters: the highest percentage, 65 percent of the surveyed designers, prefer to look for information in a magazine that presents both residential and contract work, thus reinforcing our own convictions here at *Interior Design*.

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JANUARY 1989

100 INTERIOR DESIGN GIANTS

NEW WORK BY THE PFISTER PARTNERSHIP

OFFICES FOR BBDO AND CREDIT SUISSE

A CAHNERS PUBLICATION

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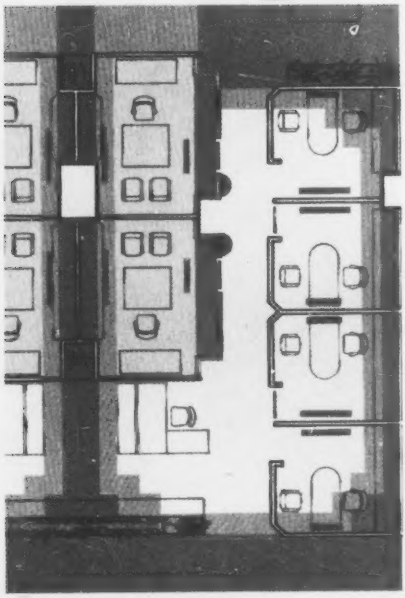

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The central rotunda of San Francisco's Western Merchandise Mart as redesigned by The Pfister Partnership. Photography: Jaime Ardiles-Arce

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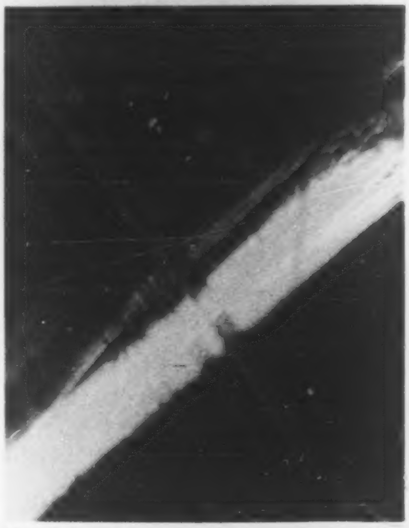

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INTERIOR DESIGN GIANTS® OF 1989

BY ANDREW LOEBELSON

Overview

This year we have taken another step towards providing better and more interesting data along with our listing of the Top Interior Design Giants. We are presenting some of our data by ten different regions within the United States and abroad. But before we examine the regional picture, let us see what kind of year it has been for the industry as a whole.

1988 was a static year for the interior design industry. After a 23-percent upsurge in total dollar value of installations last year, the top 100 Interior Design Giants stayed about the same this year. Volume went up slightly, from $10.5 billion to $10.6 billion, but fees went down slightly, from $573 million to $571 million.

Please note that our listing now shows both the non-hospitality interior design fees used for ranking the firms and the total fees of the firm. This indicates the relative importance of both interior design to the firm and of the firm to the total design/engineering world.

But firms are still getting the money to continue to add CADD services. CADD-equipped firms increased from 84 percent of the list to 92 percent of the list. CADD operators increased from six percent of the work force to 6.5 percent even as many firms were making many of their design or production employees capable of running CADD machines. And firms are getting more efficient in the use of CADD, as the "smallest area worth putting on CADD" shrank from 33,000 rentable sq. ft. (rsf) last year to 28,000 rsf this year.

This increased CADD capability has helped efficiency rise a little this year. Each employee was able to turn out $1.86 million of interior design installations this year, compared to $1.79 million last year. This 3.9 percent increase in efficiency was only about equal to inflation, but the fees available for each employee increased just one-third of that, only 1.3 percent, from $102,000 to $103,400. In other words, fees are going down in relation to work and increased efficiency is still essential to survive and prosper in this field.

This is even more true as we examine the cost of the work installed. This year the average value of work increased from $44.37 last year to $46.24 this year, in line with inflation. Fees per average sq. ft. were up an exciting 14 percent from $2.63 to $3.00, but that is still down from the $3.47 of two years ago.

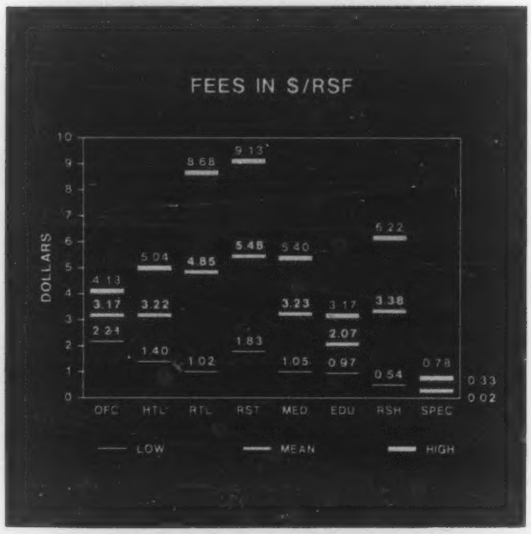
The difference between these fees per sq. ft. increasing and the overall fees staying the same can be explained by the overall timing of the work. When several major installations are scheduled for next year but have large fees this year, statistics can become skewed.

The bottom line is still under attack. And competition is still increasing.

Continued

100
INTERIOR DESIGN GIANTS®
OF 1989

CHART ONE



Industry Analysis

Fees, as mentioned before, showed a small rebound from last year, especially in the area of office space in dollars per rentable sq. ft. (the most common contractual basis for this work). The "fair fees" for the "average office installation" rose from $3.00 to $3.17 this year (CHART ONE).

Fees in percentage of volume of work for average jobs did not rise compared to last year, but since the value of that work rose some 13 percent, they enjoyed the same healthy gain (CHART TWO).

In terms of cost per sq. ft. of average installations, offices stayed about the same for new work, but rose significantly for renovations. Hotel, retail and medical work rose significantly, while restaurant work stayed about the same. The work letter value continued to rise, to $25.14, as the nationwide real estate market continued to be soft (CHART THREE).

It is always difficult to explain what an "average" job is, but this year we did ask how big it was. The average-size office job is 68,000 rsf, average hotel work involves 196,000 rsf, average retail work involves 69,000 rsf, restaurants are 10,000 rsf, medical facilities 80,000 rsf, educational facilities 105,000 rsf, and research facilities are 108,000 rsf.

We also asked our respondents a new question about speculative work in 1988. Although there was a large variation, the average firm did some 11 percent speculative work. And the going rate for what used to be called "nickle plans" was $.35 per rentable sq. ft.

Employees fared reasonably well this year. Although project managers made about the same as last year, nearly every other category of employee earned a decent raise (CHART FOUR).

This year we have added a category for principals and a category for marketing and business development staff. Marketing and business development personnel are becoming increasingly important in this competitive environment. Because of space limitations, the non-billable, non-marketing staff is not specifically noted. However if one adds all the categories listed for one firm and it is less than the total staff listed, that difference is

CHART TWO

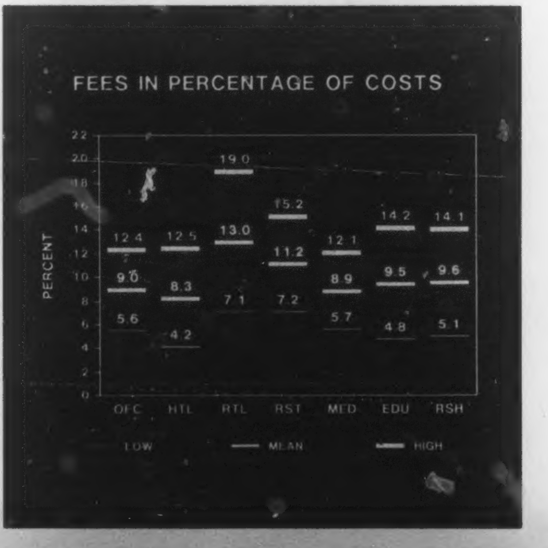
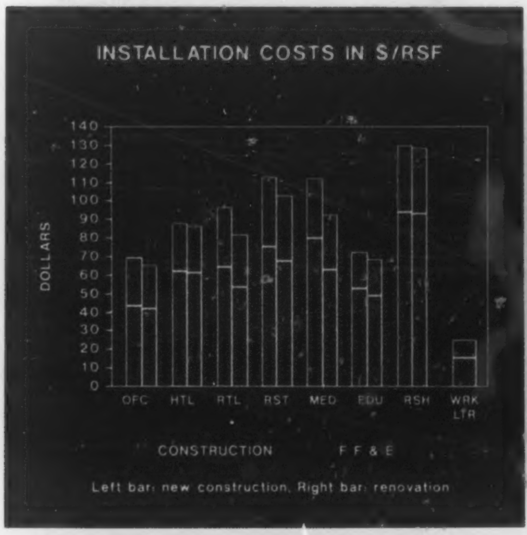
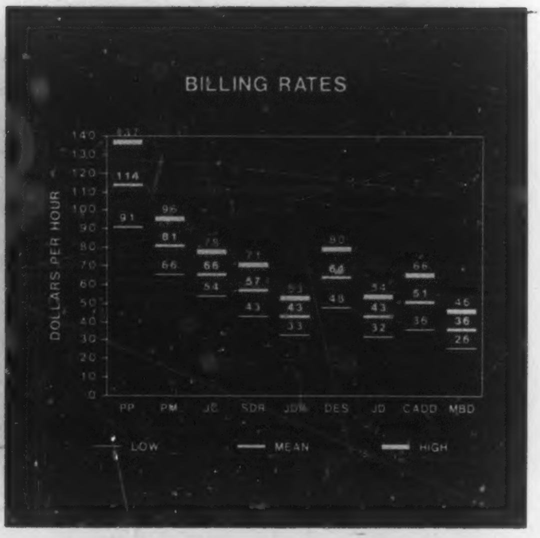


CHART THREE



Left bar: new construction. Right bar: renovation

CHART FIVE



the non-billable, non-marketing staff.

Billing rates kept pace with the salary changes, as fringes stayed at 26 percent and the multiple rose just slightly, from 2.66 to 2.68 (CHART FIVE). Billable time stayed exactly the same as last year at 79 percent.

New work stayed about the same, at 61 percent, and the amounts of open planning and furniture/wall systems usage both stayed at 48 percent. The percentage of work stations wired for computers inched up from 79 percent to 81 percent.

The base building issues continue to respond to social pressures. This year 23 percent had special smoking (or non-smoking) areas. The remaining base building issues are at the same levels as last year.

Eight outside consultants were used in more than ten percent of all projects: lighting (25 percent), cost control (23 percent), art (23 percent), telephone (21 percent), food (19 percent), audio/visual (18 percent), acoustical (14 percent), and security (12 percent) all added to the competence and complexity of modern project teams.

This year we asked a new question about errors and omissions insurance. Fully 90 percent of the top 100 Giants have E&O insurance, with an average upper limit of $1,790,000 and an average deductible of $83,000.

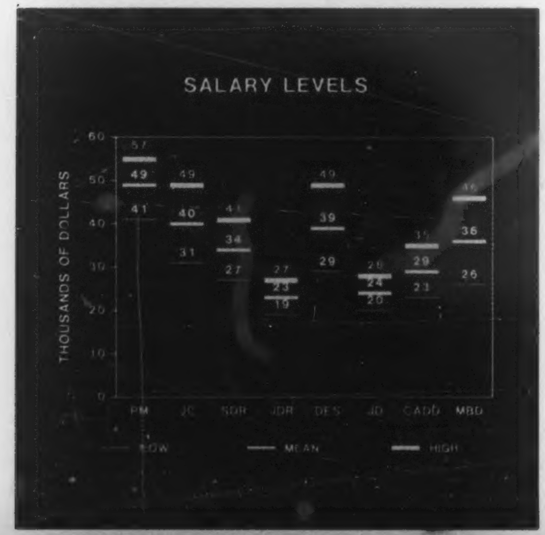
As we mentioned earlier, computers are being used more and more by these firms. In addition to the 92 percent who use them for CADD, 79 percent use them for cost control, 88 percent for project management, 70 percent for facilities management, and 87 percent for graphics.

In terms of interaction with the clients, these firms report that they are hired by top management 39 percent of the time, by senior management 30 percent of the time, by professional staff 29 percent of the time, and by architects just 2 percent of the time. A full 42 percent of the time, the job is decided by lowest bid.

When the job starts, 27 percent of the time our respondents work with an in-house architect or interior designer. Regardless of whom they actually work for, the client staff qualifications have grown tremendously. Interior designers comprise 34 percent of the staff, architects 25 percent, and engineers 12 percent; while

Continued

CHART FOUR



100
INTERIOR DESIGN GIANTS® OF 1989

maintenance people and untrained staff comprise only 19 percent and 24 percent respectively.

Corporate America continues to run a loose ship from the standpoint of standards. Some 44 percent have no furnishings or space standards at all, 28 percent have flexible ones, and another 28 percent have limited space standards. Of those with space/furnishings standards, there is an average of 6.3 standards between the lowly clerk and a senior vice president, inclusive.

Regional Analysis

In order to provide better data to our readers, we have started tracking some data by federal administrative regions. Many firms have multiple offices, but the regional breakdown (see chart below right) is by the location of the headquarters.

Since some regions do not have much representation, the regional data include all 200 Interior Design Giants (the second 100 Interior Design Giants will appear in the July 1989 issue). Even so, three regions (East South Central, Mountain, and Canada/Mexico) do not have enough firms for their statistics to be able to be compared with the others in a valid fashion. But we do have an excellent comparison among the Middle Atlantic, East North Central, South Atlantic, and Pacific regions. These regions have more than three-quarters of the firms in the top 200 and a slightly greater percentage of all fees (81.2 percent) (CHART SIX).

On this year's questionnaire we specifically asked our respondents to state their average size job and fees in their "headquarters' region of the country." We have taken the most common measure of fees, that for offices as expressed in dollars per rentable sq. ft., and compared all the regions (CHART SEVEN).

The questionnaire that these firms filled out only asked for a regional breakdown of the fees, but then we were able to examine other data that also corelated very well.

The new office costs in each of the regions show about the same overall highs and lows as the fees, although the Middle Atlantic region (New York, New Jersey and Pennsylvania) is even higher in cost (26.7 percent over average) than it was in fees (where it was 21.9 percent over average) (CHART EIGHT).

The work letter values by regional areas is another interesting chart. Since landlords are more generous

CHART SIX

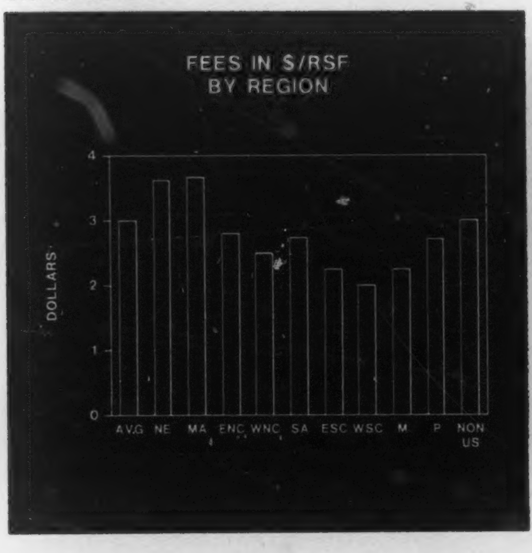
FEE VOLUME ANALYSIS BY REGION

REGION	Percentage Of Top 200 Total Fees	VOLUME In Millions	Percentage Of Top 200 Total Volume
NE	[illegible]	[illegible]	3
MA	37	[illegible]	39
ENC	[illegible]	[illegible]	11
WNC	[illegible]	[illegible]	5
SA	[illegible]	[illegible]	17
ESC	[illegible]	[illegible]	1
WSC	[illegible]	[illegible]	7
M	[illegible]	[illegible]	1
P	19	[illegible]	15
Non U.S.	1	[illegible]	1
TOTAL	100	13,267,563	100

KEY TO REGIONAL BREAKDOWN

REGION	STATES WITHIN REGION	TOP 100	SECOND 100	TOP 200
NE	ME NH VT MA RI CT	4	8	12
MA	NY NJ PA	36	24	60
ENC	OH IN IL MI WI	13	12	25
WNC	MN IA MO ND SD NE KS	5	6	11
SA	DE MD DC VA WV NC SC GA FL	17	20	37
ESC	KY TN AL MS	1	0	1
WSC	AR LA OK TX	3	9	12
M	MT ID WY CO NM AZ UT NV	2	3	5
P	WA OR CA AK HI	17	17	34
Non U.S.	Canada, Mexico	2	1	3
Total		100	100	200

CHART SEVEN



with their work letter allowances in direct proportion to their desperation to attract tenants, the chart shows the relative health of different real estate markets (CHART NINE). Note that non-U.S. work letters may not mean the same thing to tenants in the U.S.

The salaries also vary by geographic area very similarly to the other data bases. In this case, we averaged all the salaries for each firm and then compared them by region (CHART TEN).

Much the same as last year, this year the firms most respected by their peers are: Gensler and Associates, Skidmore Owings & Merrill, Kohn Pederson Fox Conway, ISD, and Gwathmey Siegel. Considered to be the best managed are: Gensler and Associates, Skidmore Owings & Merrill, Kohn Pederson Fox Conway, Hellmuth, Obata & Kassabaum, and CRSS.

The installations chosen as this year's best are: Criterion Group in Los Angeles by Skidmore Owings & Merrill (see *Interior Design,* July 1988), the Merrill Lynch Headquarters in New York by Skidmore Owings & Merrill, the Rainbow Room in New York by Hardy Holtzman Pfeiffer (see June 1988), and the Herman Miller Showroom in New York by Gwathmey Siegel.

CHART EIGHT

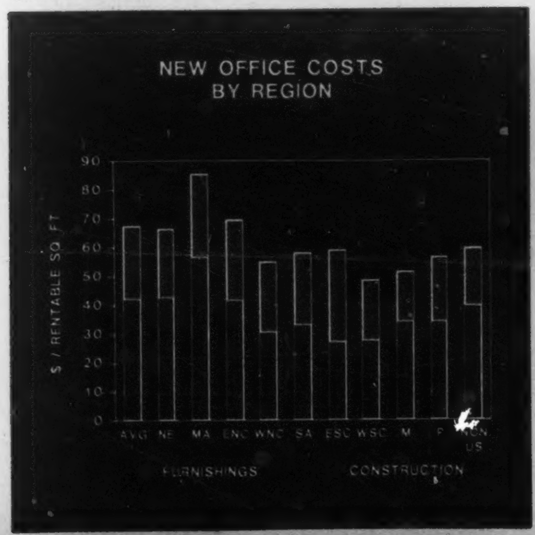
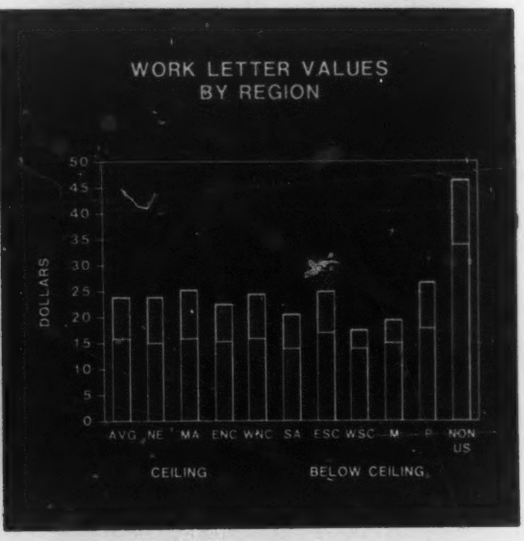


CHART NINE



Conclusions

As the field becomes increasingly competitive from well-run competition and the client becomes ever more professional and knowledgeable about controlling projects, every firm needs to be more sophisticated about the way it is run. To the extent that *Interior Design* magazine can help by providing timely management information and by educating the client, we will do so. Our new regional approach was the result of suggestions by several of our participants. If you feel there are more questions to be asked, more data to be gathered, or more information to be derived and presented, please write to let us know.

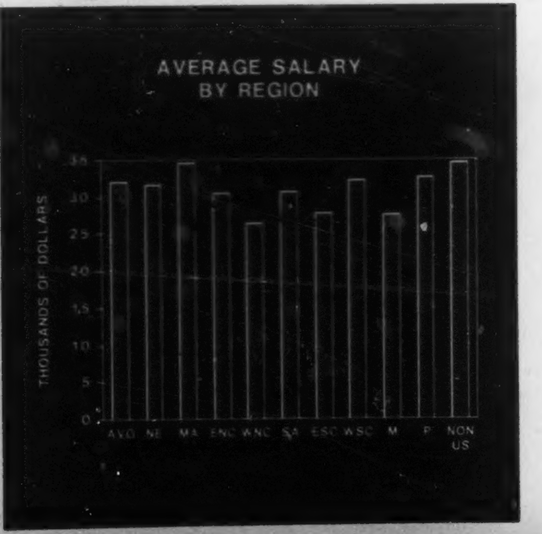
We depend on the generosity of our respondents in devoting sizable amounts of time and energy to getting the information together that we rely upon. We would like to thank those who do so. ☐

Andrew Loebelson is vice president of domestic facilities of Salomon Brothers, the New York investment banking firm.

The total fee figures on the following pages represent interior design work only (excluding hospitality interiors). All figures have been rounded off for the purpose of this listing.—Ed.

Research compiled by Deana L. Luzzi.

CHART TEN



KEYS

▢	OFFICE PLANNING FIRMS
□	GENERALISTS
▨	STORE PLANNING FIRMS
▨	MEDICAL SPECIALISTS

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INTERIOR DESIGN GIANTS® OF 1989

PP — PRINCIPALS/PARTNERS
PM — PROJECT MANAGERS
JC — JOB CAPTAINS
SDR — SENIOR DRAFTERS
JDR — JUNIOR DRAFTERS
DES — PROJECT & SENIOR DESIGNERS
JD — JUNIOR DESIGNERS
CADD — CADD OPERATORS
MBD — MARKETING BUSINESS DEVELOPMENT
TID — TOTAL INTERIOR DESIGN STAFF

RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEES IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	STAFF DATA								1988 INSTALLATIONS	1989 INSTALLATIONS
						NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR	NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR		
1 (1)	**Gensler and Associates/ Architects** San Francisco Denver, Houston, Los Angeles, New York Washington, Irvine & San Jose, CA	37.69	50.25	528.0	9.60	8 52 54 39 122	PP PM JC SDR JDR	NA 60 42 35 35	130 100 75 65 65	105 95 25 11 488	DES JD CADD MBD TID	49.3 28 37.5 40 —	88 48 65 — —	Columbia Pictures, Burbank, CA R.J. Reynolds Tobacco, Winston Salem, NC Kaye, Scholer, Fierman, et. al., New York The Bank of Nova Scotia, Toronto Northern Telecom Canada Ltd., Toronto	Union Bank of Switzerland, New York Apple Computer, Inc., San Jose, CA Epson America, Inc., Torrance, CA Becton Dickinson & Co., San Jose, CA Wells Fargo, San Francisco
2 (2)	**PHH Environments** Hunt Valley, MD New York, Dallas, Philadelphia, Washington, D.C., Chicago, Detroit, Los Angeles, Newport Beach	26.50	26.50	590.0	9.35	15 89 13 7 17	PP PM JC SDR JDR	NA 52 37 NA NA	125 90 65 NA 35	59 30 13 43 364	DES JD CADD MBD TID	36.5 25 29 38 —	60 35 55 — —	Homart Development, Chicago BCE Development, Chicago Home Savings of America, Irwindale, CA Citicorp, Dallas L. F. Rothschild, New York	Sears Consumer Financial, Chicago Meridian Banco, Reading, PA PHH FleetAmerica, Hunt Valley, MD Citicorp Credit Services, Long Island, NY The Travelers Companies, Richmond, VA
3 (5 & 78)	**ODA/Environetics Inc.** New York Los Angeles, Mexico City, London Sidney & Melbourne, Australia	22.47	24.97	408.0	7.15	10 45 15 22 30	PP PM JC SDR JDR	NA 50 40 35 26	150 NA NA NA NA	38 25 12 10 257	DES JD CADD MBD TID	40 27.5 32.5 45 —	NA NA NA — —	Congress Talcott Corp., New York State Compensation Fund, Woodland Hills, CA Northrup Corporation, Ventura, CA TRW/ISD Division, Orange, CA Rubin Baum Levin Constant & Friedman, New York	Cotton Inc., New York Tokai Bank Ltd., New York U.S. Life Corp., New York & New Jersey Paterson, Belknap, Webb & Tyler, New York Knight-Ridder Financial Info. Group, New York
4 (3)	**Swanke Hayden Connell Ltd.** New York Chicago, London, Miami, Washington, D.C.	18.00	30.00	833.0	4.37	7 23 9 5 14	PP PM JC SDR JDR	NA 55 40 38 26	175 135 95 85 65	25 13 — 4 165	DES JD CADD MBD TID	49.3 26 — 55 —	130 60 — — —	Nabisco Brands, East Hanover, NJ Fried, Frank, Harris, Shriver & Jacobson, New York Prudential Bache Securities, New York Shearson Lehman Hutton, London RJR Nabisco Corporate Headquarters, Atlanta	Stowe Corporation, New York Proskauer Rose Goetz & Mendelsohn, New York Deutsche Bank AG, New York Tambrands, Lake Success, NY Sumitomo Realty & Development, New York
5 (6)	**Hellmuth Obata & Kassabaum** St. Louis Dallas, Houston, New York, Kansas City, Los Angeles, San Francisco, Washington, D.C., Tampa, London, Hong Kong	16.94	74.55	244.8	5.08	6 24 17 5 4	PP PM JC SDR JDR	NA 49.5 38 28.8 21.3	125 92 71 49 38	37 18 7 5 127	DES JD CADD MBD TID	42.2 24.2 25 42.5 —	78 46 46 — —	AT&T, Pleasanton, CA Presbyterian Church (USA), Louisville, KY BDM Fairfax - Phase I, Fairfax, VA Security Pacific National Bank, Costa Mesa, CA First Boston Corporation, Dallas	J.P. Morgan Guaranty, New York AT&T Midwestern Region Headquarters, Chicago San Diego Convention Center, San Diego Naval Intelligence Center, Suitland, MD E.R. Squibb & Sons, Lawrenceville, NJ
6 (4)	**CRSS (Architecture Group)** Houston Washington, New York, Dallas, Denver, Irvine, CA; Greenville, SC	15.96	210.0	321.0	5.80	15 20 25 5 10	PP PM JC SDR JDR	NA 55 45 50 30	150 90 75 75 45	30 20 10 12 169	DES JD CADD MBD TID	65 35 45 35 —	83 55 65 — —	3M Austin Center, Austin, TX IBM Westlake, Westlake, TX Freddie Mac, Arlington, VA Primerica, Stamford, CT Computer Assoc., Dallas	Ben Taub Hospital, Houston Texas Commerce Bank, Houston Pacific Bell, Santa Ana, CA 3M Austin Center Phase II, Austin, TX RJ Reynolds, Winston Salem, NC
7 (9)	**ISD Incorporated** New York Chicago, Houston, Los Angeles	14.05	14.05	257.0	4.68	14 — — — —	PP PM JC SDR JDR	NA — — — —	115 — — — —	68 68 15 13 215	DES JD CADD MBD TID	44 22 25 30 —	73 38 42 — —	Southland Corporation, Dallas American National Can, Chicago Chemical Bank, New York ARCO Oil & Gas, Midland, TX Bingham, Dana & Gould, Boston	Leo Burnett Co., Chicago The Walt Disney Co., Burbank, CA U S Fidelity & Guaranty Co., Baltimore, MD Sidley & Austin, Chicago Touche Ross & Co., Chicago
8 (7)	**Mancini Duffy Associates** New York Miami & Boca Raton, FL; Parsippany, NJ; Hicksville, NY	13.00	13.00	400.0	4.25	3 22 6 8 16	PP PM JC SDR JDR	NA 45 36.5 35 25	95 82 52 52 42	27 23 12 4 146	DES JD CADD MBD TID	39.3 28 23.5 NA —	63 42 42 — —	Wertheim Schroder & Co., New York Peat Marwick Main & Co., New York Arthur Andersen & Co., New York Donovan Data Services, New York Chase Manhattan Bank, Wilmington, DE	Marsh & McLennan Co., New York U.S. Trust Company of New York, New York N.W. Ayer Incorporated, New York Pershing, Jersey City, NJ Spear Leeds & Kellogg, New York

NA indicates information not available — indicates information not applicable to category and/or firm.

9 (14)	**Leo A. Daly** Omaha Washington, Atlanta, St. Louis, Seattle, Los Angeles, San Francisco, Tokyo, Honolulu, Singapore, Hong Kong, Chantilly, VA	11.25	38.20	173.0	3.90	NA 5 5 6 4	PP PM JC SDR JDR	NA NA NA NA NA	NA 90 80 50 40	21 DES 5 JD 10 CADD — MBD 62 TID	NA NA NA — —	60 40 40 — —	Marriott Corporate Headquarters, Bethesda, MD One Pacific Place, Omaha, NE Peat Marwick Main & Co., Washington, D.C. McDonnell Douglas Aircraft, Long Beach, CA IBM Offices, Hong Kong	ConAgra Corporate Headquarters, Omaha, NE UCLA School of Engineering, Los Angeles NCR, Atlanta American Express, Hong Kong Standard Federal S&L, Gaithersburg, MD
10 (12)	**WalkerGroup/CNI, Inc.** New York Los Angeles, Tokyo, London	11.81	13.75	168.0	4.20	7 15 15 28 16	PP PM JC SDR JDR	NA NA NA NA NA	125 90 75 70 50	10 DES 18 JD 3 CADD 5 MBD 125 TID	NA NA NA NA —	90 50 NA — —	Burdines - West Palm Beach, FL Marshall Field - Water Tower, Chicago Ivey's - Southpark, Charlotte, NC Galeries Lafayette, Paris Saks, Bal Harbor, FL	J. Walter Thompson Corporate Offices, Chicago Saks Fifth Avenue, New York House of Fraser, London Isetan, Tokyo Citibank, Various Locations
11 (17)	**Reel/Grobman & Associates** Los Angeles San Francisco, Santa Ana & San Jose, CA	9.89	9.89	225.0	3.75	5 9 8 12 14	PP PM JC SDR JDR	NA 65 40 35 24	125 90 65 60 45	40 DES 30 JD 8 CADD 4 MBD 160 TID	44 24 26 36 —	70 45 50 — —	Mkt. Performance Innovation, Long Beach, CA Kindel & Anderson, Los Angeles Deloitte Haskins & Sells, San Francisco Community Bank, Pasadena, CA CIGNA Service Company, Los Angeles	Nel, San Francisco Amgen, Inc., Thousand Oaks, CA Pharmacia Ophthalmics, Monrovia, CA Ticor Title Insurance, Rosemead, CA Ashton-Tate, San Jose, CA
12 (24)	**Hambrecht Terrell International** New York Los Angeles, London	9.60	12.00	160.0	4.90	15 12 12 20 30	PP PM JC SDR JDR	NA 66.8 44 40 30	150 128 82 70 55	10 DES 18 JD 2 CADD 1 MBS 28 TID	55 30 35 25 —	100 55 55 — —	Bloomingdale's, Chicago Macy's, Bridgewater, NJ Maison Blanche, Clearview, New Orleans J.W. Robinson's, Northridge, CA Saks Fifth Avenue, Tysons, VA	Myer's Rundle Mall, Adelaide, Australia Marshall Fields, Columbus, OH Maison Blanche-Countryside, Clearwater, FL Maison Blanche-Slidell, North Shore Square, LA Maison Blanche, Lakeland, FL
13 (13)	**Cole Martinez Curtis and Associates** Marina del Rey, CA Los Angeles & Irvine, CA	9.60	9.60	122.5	4.02	6 20 10 11 10	PP PM JC SDR JDR	NA NA NA NA NA	150 72 54 50 32	21 DES 9 JD 3 CADD 2 MBD 124 TID	NA NA NA NA —	58 42 52 — —	First Interstate Tower, Los Angeles Wigwam Country Club, Litchfield Park, AZ Westside Towers, West Los Angeles May Company- Lakewood Park Ctr., Lakewood, CA Goldwaters-Fashion Square, Scottsdale, AZ	Palm Springs Riviera, Palm Springs, CA Goldwaters-Coronado Center, Albuquerque, NM Transamerica Insurance, Los Angeles Arthur Anderson & Co., Los Angeles May Company-Brea Mall, Brea, CA
14 (80)	**Cannon** Grand Island, NY New York, St. Louis, Boston, Washington, D.C., Buffalo, NY	9.55	29.84	145.0	2.80	3 9 6 10 14	PP PM JC SDR JDR	NA 45 36 32 20	NA 75 60 50 35	15 DES 10 JD 10 CADD 3 MBD 90 TID	39 29 18 40 —	65 30 30 — —	Univ. of Buffalo Med. School Complex, Buffalo, NY Blue Cross, Buffalo, NY George Washington Univ. Hosp., Washington, D.C. Hamot Medical Center, Erie, PA Kensington Medical Center, Kensington, MD	Ft. Washington Lifecare, Prince George's Cty., MD Cleveland Union Terminal, Cleveland Boston Univ. Bio. Bldg. & Sargents College, Boston Brooklyn Children's Psychiatric Ctr., Brooklyn, NY St. Vincent's Medical Center, Staten Island, NY
15 (19)	**R.J. Pavlik, Inc.** Ft. Lauderdale, FL Dallas	8.61	9.07	149.3	4.55	3 5 8 12 17	PP PM JC SDR JDR	NA 66 45 42 31	NA NA NA NA NA	6 DES 5 JD 1 CADD — MBD 82 TID	64 32 35 — —	NA NA NA — —	Strawbridge & Clothier, King of Prussia, PA Dayton Hudson, Oakland, MI Lord & Taylor, Memphis, TN Hecht Company, Fairfax, VA Strawbridge & Clothier, Willow Grove, PA	Strawbridge & Clothier, Cherry Hill, NY Lord & Taylor, Plantation, FL Belks, Raleigh, NC Dayton Hudson, Oakland, MI G. Fox, Winchester, CT
16 (27)	**Howard Needles Tammen & Bergendoff** Kansas City, MO Indianapolis, Milwaukee, Los Angeles, Seattle, Boston, New York, Phoenix, Kansas City, MO; Alexandria, VA	8.50	34.00	38.4	1.53	5 15 10 6 8	PP PM JC SDR JDR	NA 50 33 35 21	90 70 55 60 35	15 DES 8 JD 3 CADD 3 MBD 88 TID	29.5 19 31 30 —	35 25 41 — —	Jewish Community Center, Overland Park, KS Dana Point Resort, Dana Point, CA Financial Center Western Savings, Phoenix Palm Springs Convention Center, Palm Springs, CA Evansville Airport Terminal, Evansville, IN	U.S. West Communications/Phoenix Plaza, Phoenix Anaheim Convention Center, Anaheim, CA Central States Pension Fund, Chicago Wisconsin Bell, Milwaukee Eli Lilly Corporate Hangar, Indianapolis
17 (28)	**The Callison Partnership** Seattle San Diego	8.40	21.00	25.0	.50	2 1 5 1 —	PP PM JC SDR JDR	NA NA NA NA —	90 63 50 63 —	22 DES 15 JD — CADD — MBS 49 TID	NA NA — — —	45 33 — — —	GTE-Northwest, Everett, WA Nordstrom Tysons Corner, McLean, VA Nordstrom Southcenter, Tukwila, WA Alaska Airlines, Seattle Rainier Operations Center, Seattle	Washington Mutual, Seattle Lane Powell Moss & Miller, Seattle Pacific First Federal, Seattle Nordstrom Pentagon City, Washington, D.C. Nordstrom Arden Fair, Sacramento, CA
18 (22)	**Ryan Gibson Bauer Kornblath, P.A.** Middletown, NJ New York	8.24	11.57	144.1	1.90	4 4 10 5 4	PP PM JC SDR JDR	NA 67 53.2 36.5 20.2	125 100 75 65 35	16 DES 17 JD 15 CADD 5 MBD 96 TID	44 28 31 50 —	70 35 55 — —	Merrill Lynch & Co., New York Port Authority of NY & NJ - WTC HQ, New York NJIT - Math Humanities, Newark, NJ R. Wood Johnson Hospital, New Brunswick, NJ The Ryan Group Corporate Offices, New York	Merrill Lynch & Co., New York Port Authority of NY & NJ - WTC HQ, New York NJIT - Info Tech Center, Newark, NJ NJIT - Micro Electronics, Newark, NJ New Jersey Department of Agriculture, Trenton, NJ
19 (15)	**The Miller Organization, Inc.** New York	8.22	8.22	135.0	3.50	4 5 3 5 8	PP PM JC SDR JDR	NA 50.5 44.5 36.4 27	150 93 90 70 70	9 DES 5 JD 5 CADD 1 MBD 50 TID	45.6 32 27 NA —	90 70 70 — —	Merrill Lynch & Co., Inc., Princeton, NJ Merrill Lynch & Co., Inc., Somerset, NJ Morgan Guaranty Trust Company, New York Nomura Securities International, New York Columbia Presbyterian Medical Center, New York	Nomura International Inc., London State of New Jersey, Trenton, NJ Merrill Lynch & Co., Inc., Princeton, NJ Shearson Lehman Hutton, Inc., New York Dun & Bradstreet, Allentown, PA
20 (16)	**HLW Architects Engineers & Planners** New York Basking Ridge, NJ; Al Khobar, Saudi Arabia	8.12	23.20	190.4	2.07	1 9 12 16 6	PP PM JC SDR JDR	NA 62 40.6 33.8 28	150 114 75 62 51	12 DES 4 JD — CADD 2 MBD 73 TID	39 25.5 — 29.5 —	72 47 — — —	American Re-Insurance, Princeton, NJ Various Murdoch Magazines, New York USPS Administrative & Mail Facility, Queens, NY Federal Reserve Bank, Cranford, NJ HLW Offices, New York	Jaguar Motor Cars, Mahwah, NJ Engelhard Corp., Edison, NJ News America Corp., New York U.S. Surgical, Norwalk, CT Warwick Advertising, New York

* Rankings determined by fees before rounding. All figures have been rounded off for the purpose of this ranking.

RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEES IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	STAFF DATA								1988 INSTALLATIONS	1989 INSTALLATIONS
						NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR	NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR		
21 (116)	**Gwathmey Siegel & Associates Architects** New York Bedford, NY	8.12	8.12	50.0	.70	2 12 5 19 7	PP PM JC SDR JDR	NA 60 45 40 35	NA 85 75 60 50	— — 3 — 55	DES JD CADD MBD TID	— — 37 — —	— — 52 — —	SBK Entertainment World, Inc. Offices, New York Astoria Museum of the Moving Image, Astoria, NY Herman Miller Showroom, Long Island City, NY Office Building, Princeton, NJ IBM Greensboro, Greensboro, NC	Cornell Univ. Agriculture Building, Ithaca, NY Cornell Univ. Field House, Ithaca, NY Cornell Univ. Theory Center, Ithaca, NY DMB&B Office Interiors, New York McCann Erickson Office Interiors, New York
22 (8)	**Bonsignore Brignati & Mazzotta, P.C.** New York	8.10	9.07	62.0	.94	3 11 13 15 6	PP PM JC SDR JDR	NA 50 42.6 38 27.5	125 90 75 65 45	10 2 6 23 90	DES JD CADD MBD TID	48.5 30.4 33.6 40 —	61 50 55 — —	The Plaza Hotel, New York New York Telephone, Brooklyn, NY Manufacturers Hanover, New York Bank of New York, New York New York Stock Exchange, New York	New York Stock Exchange, New York Manufacturers Hanover, New York New York Telephone, New York Elsevier Science Publishing Company, New York Residences At The Surf, Revere, MA
23 (44)	**RTKL Associates, Inc.** Baltimore, MD Dallas, Los Angeles, Washington, D.C., Fort Lauderdale, FL	7.75	51.00	154.9	5.00	— 4 6 — —	PP PM JC SDR JDR	— 45 35 — —	— 75 62 — —	10 8 — — 32	DES JD CADD MBD TID	37.5 31 — — —	66 55 — — —	Rivoli Office Building, Baltimore Classified Project, Washington, D.C. Princeton Marriott Forrestal Village, Princeton, NJ American National Can, Greenwich, CT Peat Marwick Main & Co., Baltimore	Fairfax County Government Center, Fairfax, VA Alex. Brown & Sons, Baltimore Bank of Baltimore Executive Offices, Baltimore Catholic Relief Services World HQ, Baltimore Democracy Plaza Marriott, Bethesda, MD
24 (20)	**HKS, Inc.** Dallas Los Angeles, Tampa, FL	7.70	51.30	92.8	4.89	1 7 9 6 7	PP PM JC SDR JDR	NA 40 30 25 20	80 77 58 48 39	12 5 — — 50	DES JD CADD MBD TID	32.5 20 — 17 —	63 39 — — —	J.C. Penney Company, Dallas First RepublicBank, Dallas USAA Towers, San Antonio Dr. Pepper & The Seven Up Company, Dallas All Saints Southwest, Fort Worth, TX	Winchester Medical Center, Winchester, VA Cook Ft. Worth Children's Med. Ctr, Ft. Worth, TX Annuity Board Southern Baptist Convention, Dallas Mobil New Southwest Computer Center, Dallas Brown, Maroney, Rose, Barber & Dye, Austin, TX
25 (25)	**Retail Planning Associates, Inc.** Columbus, OH Westwood, NJ	7.46	9.05	75.0	2.35	2 5 — 13 3	PP PM JC SDR JDR	NA 57 — 31 23	NA 100 — 65 55	17 5 3 9 64	DES JD CADD MBD TID	42 26 23 NA —	75 50 40 — —	Wal-Mart Hypermart USA, Dallas Bank One Financial Marketplace, Columbus, OH U.S. Navy Exchange, Orlando, FL Clover div. Strawbridge & Clothier, Philadelphia Camelot Music Superstore, Columbus, OH	Sears, Roebuck, Chicago Anttila Department Stores, Helsinki, Finland Norwest Bank, Minneapolis Unilever, Bakirkoy Trade Center, Istanbul, Turkey The Mall at Mill Run, Columbus/Hilliard, OH
26 (26)	**Griswold Heckel & Kelly Associates, Inc.** New York Chicago, Boston, Denver	7.00	7.00	230.0	4.20	11 10 14 14 16	PP PM JC SDR JDR	NA 45 38 36 20	90 75 55 45 35	36 14 8 5 140	DES JD CADD MBD TID	29 20 32 35 —	43 30 45 — —	Arthur Andersen & Co., Chicago Associated Press, Nationwide Chase Manhattan Bank, New York Coopers & Lybrand, Boston JMB Realty Corp., Chicago	Bank of Boston, Boston Citicorp, Chicago & New York Chevron, Denver Sterling Drug Co., New York Unocal Corp., Schaumburg, IL
27 (35)	**The Hillier Group** Princeton, NJ Philadelphia, Tampa, FL	6.93	22.33	126.0	1.64	2 4 5 5 8	PP PM JC SDR JDR	NA 45 40 36 22	100 70 60 60 45	3 5 4 — 41	DES JD CADD MBD TID	40 22 28 — —	60 45 50 — —	UpJohn Company, Kalamazoo, MI Duns Marketing Services, Parsippany, NJ Division of Taxation, State of NJ, Trenton, NJ Prudential Eastern HQ, Ft. Washington, PA Univ. of PA/Wharton School, Philadelphia	McCormack & Dodge, Natick, MA Squibb Corporation, Lawrenceville, NJ Johnson & Johnson, New Brunswick, NJ
28 (49)	**Space Design International, Inc. (SDI)** Cincinnati Los Angeles, Tampa, FL	6.32	7.61	71.6	2.50	5 14 9 8 18	PP PM JC SDR JDR	NA 60 37 34 29	125 87 60 54 30	22 28 3 7 129	DES JD CADD MBD TID	37 21 23 35 —	57 34 38 — —	Savings & Loan Data Corp., Cincinnati Edward J. DeBartolo Corp., Nationwide Federated/Allied, Several P.A. Bergner & Co., Regionally The Limited, Nationwide	Quantum Chemical Corp., Cincinnati IBM, Several Federated/Allied, Nationwide [illegible], Florida The Limited, Nationwide
29 (38)	**SCR Design Organization, Inc** New York	6.20	6.20	85.0	2.30	4 9 5 10 7	PP PM JC SDR JDR	NA 53 40 35 27	NA 95 85 75 75	14 4 4 1 63	DES JD CADD MBD TID	42 26 32 NA —	85 85 85 — —	Young & Rubicam, New York Citibank, New York Wang Laboratories, New York ADP, Clifton, NJ Shearson Lehman, New York	Citicorp, New York Viking Penguin, New York Newsday, New York Morgan Guaranty Trust, New York [illegible] IPC, New York
30 (36)	**Flad & Associates** Madison, WI Gainesville, FL	5.98	17.25	33.84	1.32	5 10 — — 10	PP PM JC SDR JDR	NA 45 — — 16	100 65 — — 28	4 3 4 4 45	DES JD CADD MBD TID	25.5 16 24 30 —	40 28 39 — —	Madison Tech. College-Phase 2, Madison, WI Whirlpool Corporation, Benton Harbor, MI Church Mutual Insurance Co., Merrill, WI Industrial Lab-Northwestern Univ., Evanston, IL St. Elizabeth Hospital, Appleton, WI	Northwestern Mutual Life Insurance, Milwaukee St. Francis Medical Center, Peoria, IL Shands Teaching Hosp., Phase 3, Gainesville, FL Baxter Healthcare Corporation, Round Lake, IL Univ. Wisconsin Health Science Ctr., Madison, WI
31 (18)	**3D/International** Houston Los Angeles, Hong Kong, Washington, D.C.; San, Antonio, TX	5.95	19.50	125.0	3.50	2 4 6 8 10	PP PM JC SDR JDR	NA 65 45 35 30	150 100 70 55 48	12 12 5 3 65	DES JD CADD MBD TID	40 30 30 30 —	63 49 40 — —	Browning Ferris Industries HQ, Houston Childrens Nutrition & Research Center, Houston Smith Tower/Methodist Hospital, Houston Cox & Smith, San Antonio, TX USAA, Colorado Springs, CO & Sacramento, CA	Veterans Administration Hospital, Houston NBC Bank, San Antonio, TX Houston Area Research Center I & II, Houston Dept. Army Sector/The Pentagon, Washington, D.C. Southeast Police Command Center, Houston

NA indicates information not available — indicates information not applicable to category and/or firm.

32 (39)	**The Switzer Group, Inc.** New York	5.94	6.00	140.5	2.11	3 3 11 4 1	PP PM JC SDR JDR	NA NA NA NA NA	150 100 95 90 75	4 2 3 3 43	DES JD CADD MBD TID	NA NA NA NA —	90 75 110 — —	Integrated Resources, Inc., New York Continental Insurance Company, Cranbury, NJ Banque Paribas/Paribas North America, New York William Esty Agency, New York McGraw Hill, Washington, D.C.	Integrated Resources, Inc., New York Blue Cross/Blue Shield of NJ, Newark, NJ Ramapo College, Mahwah, NJ Parfums Stern, New York Hill Samuel, Inc., New York
33 (32)	**The Office of Pierce Goodwin Alexander** Houston Dallas & Austin, TX	5.72	9.00	97.0	1.50	— 4 — 3 4	PP PM JC SDR JDR	— 45 — 35 25	— 75 — 60 44	10 5 2 2 34	DES JD CADD MBD TID	30.5 22 24 32 —	54 38 42 — —	Shell Oil Company, Houston St. Luke's Episcopal Hospital, Houston Laventhol & Horwath, Houston LaBelle Rive Restaurant, Houston Bonner & Moore, Houston	Federal Reserve Bank Branch Houston, Houston International Arrivals Terminal, Houston American Red Cross, Houston Charter Bank, Houston NASA/Central Computing Facility, Houston
34 (42)	**International Design Group (Canada) Inc.** Toronto New York, London & Gateshead, England	5.69	5.99	80.0	1.30	9 — — 21 —	PP PM JC SDR JDR	NA — — 66 —	120 — — 85 —	34 10 — — 84	DES JD CADD MBD TID	40 33 — — —	85 65 — — —	Metro Centre II, Gateshead, New Castle/England Unicenter, Buenos Aires, Argentina Hazelton Lanes, Toronto St. Foy Shopping Centre, St. Foy, Quebec Jumbo Supermarket, Hipermercado, Jumbo, S.A.	Liverpool Shopping Centre, Liverpool, U.K. Antwerp Shopping Centre, Antwerp, Belgium Kingsway Garden Mall, Edmonton, Alta
35 (52)	**Burt Hill Kosar Rittelmann Associates** Pittsburgh New York, Washington, D.C.; Butler & Philadelphia, PA; Ft. Meyers, FL	5.46	17.96	77.0	2.30	2 19 — 5 —	PP PM JC SDR JDR	NA 36 — 24 —	110 65 — 45 —	16 16 5 6 75	DES JD CADD MBD TID	30.5 17 18 30 —	55 40 35 — —	Blue Cross of Western Pennsylvania, Pittsburgh Marsh and McLennan, Inc., Pittsburgh George Washington Univ., Washington, D.C. Mellon Bank, Philadelphia NVRYAN, Eastern United States	Blue Cross of Western Pennsylvania, Pittsburgh Radisson Hotel, Pittsburgh Biomedical Science Tower, Pittsburgh Bala Cynwyd Assoc. Building, Bala Cynwyd, PA NVRYAN, Eastern United States
36 (23)	**Space Design, Incorporated** Philadelphia Marlton, NJ	5.02	6.34	1.93	3.30	4 13 12 — —	PP PM JC SDR JDR	NA 40 35 — —	93 80 65 — —	13 — 47 1 107	DES JC CADD MBD TID	25 — 20 25 —	55 — 45 — —	Pepper, Hamilton & Scheetz, Philadelphia Stradley, Ronon, Stevens & Young, Philadelphia Squibb Technical Operations, Princeton, NJ Provident National Bank, Philadelphia SEPTA, Philadelphia	PECO, Chesterbrook, PA State of New Jersey, Trenton, NJ Miller, Anderson & Sherrerd, Bala Cynwyd, PA Rawle & Henderson, Philadelphia Karr-Barth Associates, Bala Cynwyd, PA
37 (37)	**Business Space Design** Seattle New York, San Francisco, Columbus, OH; Tuscon & Phoenix, AZ; Raleigh, NC; Charleston, SC	4.80	4.90	63.6	2.57	3 9 5 9 6	PP PM JC SDR JDR	NA 42 35 37 23	100 68 58 60 38	7 6 1 1 54	DES JD CADD MBD TID	36 23 21 35 —	61 38 35 — —	Karr, Tuttle, Campbell, Seattle Lamonts - 12 Stores, Seattle Eddie Bauer - 36 Stores, Redmond, WA Huntington Bank Operations Center, Columbus, OH State Office Tower, Columbus, OH	GNA, Seattle Johnson & Higgins, Seattle Eddie Bauer - 22 Stores, Redmond, WA State Auto Pavilion, Columbus, OH Nationwide III, Columbus, OH
38 (41)	**IA, Interior Architects, Inc.** San Francisco New York, Los Angeles	4.80	4.80	60.0	1.95	6 13 6 6 3	PP PM JC SDR JDR	NA 45 32 29 25	90 80 57 52 45	10 2 1 2 63	DES JD CADD MBD TID	33.5 24 39 NA —	60 43 70 — —	R.J. Reynolds/Nabisco HQ-Phase I, E. Hanover, NJ Hambrecht & Quist Headquarters, San Fancisco Kohlberg Kravis Roberts & Co., New York Dean Witter Reynolds, Various Locations Zen-Noh Unico American Corporate HQ, New York	The Clorox Company Headquarters, Oakland, CA Bank of America, Various Locations Merrill Lynch Regional HQ, San Fancisco Ahmanson Commercial Development, Oakland, CA The Trump Group, New York
39 (71)	**Greenwell Goetz Architects, P.C.** Washington, D.C. Vienna, VA	4.65	4.65	57.5	1.25	3 8 10 12 2	PP PM JC SDR JDR	NA 47 40 35 25	95 70 55 55 45	8 2 2 1 58	DES JD CADD MBD TID	37.5 22 26 30 —	55 45 55 — —	The Wyatt Company, Washington, D.C. Aetna Insurance Company, Fairfax, VA Victor O. Schinnerer Company, Chevy Chase, MD International Trade Commission, Washington, D.C. C.R.I., Rockville, MD	Communication Workers/America, Washington, D.C. Ringling Bros. Barnum & Bailey, Vienna, VA Atlis Systems, Inc., Rockville, MD Banner Life Insurance, Rockville, MD Netrix, Inc., Fairfax, VA
40 (50)	**CUH2A** Princeton, NJ	4.52	18.07	67.9	1.42	11 1 4 2 1	PP PM JC SDR JDR	NA 46.5 42 33.5 27.5	125 90 68 51 43	14 6 3 2 45	DES JD CADD MBD TID	37.3 21 33 NA —	54 33 43 — —	Thomas & Betts Corporation HQ, Bridgewater, NJ BMW of North America HQ, Woodcliff Lake, NJ Merck Sharp & Dohme, West Point, PA The Pullman Company HQ, Princeton, NJ Merrill Lynch Financial Group, Princeton, NJ	Rorer Group, Inc., Upper Providence Township, PA Pitney, Hardin, Kipp & Szuch, Florham Park, NJ Pfizer, Inc., Groton, CT Metropolitan Life Real Estate Investments, Various AT&T, Whippany, NJ
41 (66)	**Perkins & Will** Chicago New York, Washington, D.C.	4.51	19.00	195.3	5.50	3 8 3 3 —	PP PM JC SDR JDR	NA 42.5 35 32 —	90 75 60 55 —	19 15 3 21 137	DES JD CADD MBD TID	36 23 24 NA —	63 40 40 — —	Statler & Company, Chicago IBM, Chicago Pepsi Cola General Bottlers, Chicago Price Waterhouse, Chicago Norwalk City Hall and Concert Hall, Norwalk,CT	Kraft, Northfield, CT Applied Technology Center, Grand Rapids, MI Arthur J. Gallagher, Chicago Kuwait Univ. Library & Admin. Bldgs., Kuwait City AT&T, Naperville, IL
42 (95)	**SPGA Group, Inc.** New York	4.25	4.25	66.1	1.30	3 6 5 6 3	PP PM JC SDR JDR	NA 55 38 30 22	100 80 65 65 45	10 6 — — 49	DES JD CADD MBD TID	45 24 — — —	69 48 — — —	Loews Corporate Offices, New York Lorillard Loews, New York DuPont DeNemours Conf. Ctr., Wilmington, DE Otis Elevator Company, New York Continental Insurance Company, Neptune, NJ	Estee Lauder, New York Drug Enforcement Agency, New York L.J. Hooker, New York Orion Pictures, New York North American Philips Corp., New York
43 (34)	**The Architects Collaborative, Inc.** Cambridge, MA San Francisco, Kuwait City	4.12	19.6	141.3	1.80	1 6 3 — —	PP PM JC SDR JDR	NA 47.5 35 — —	150 80 60 — —	21 10 2 2 49	DES JD CADD MBD TID	34 22 27.5 NA —	57 37 46 — —	Zayre Corp. Headquarters, Framingham, MA John Hancock Mutual Life, Boston The Limited Stores, Nationwide Sun Microsystems, Westford, MA Cornell Univ., Statler Hall, Ithaca, NY	The Amiri Diwan, Kuwait Harvard Univ. Kennedy School, Cambridge, MA Camp, Dresser & McKee, Cambridge, MA Northeastern Univ. Library, Boston Pinellas County School Admin., Tampa, FL

• Rankings determined by fees before rounding. All figures have been rounded off for the purpose of this ranking.

RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEES IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	STAFF DATA								1988 INSTALLATIONS	1989 INSTALLATIONS
						NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR	NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR		
44 (54)	**Descon Interiors, Inc.** New York Los Angeles	4.10	4.10	80.0	1.30	4 9 1 7 5	PP PM JC SDR JDR	NA 45 75 35 20	NA 75 100 75 50	7 4 3 3 52	DES JD CADD MBD TID	47.5 25 20 40 —	78 55 45 —	Public Service Mutual Insurance, New York Doremus & Co., New York McGraw-Hill, New York Porter Novelli, New York Adelphi University, New York	Harper & Row, New York The Equitable, New York U.S. Committee for UNICEF, New York Omnicom Group, New York Grey Advertising, New York
45 (97)	**STUDIOS Architecture** San Francisco & Washington, D.C. London	4.07	5.04	35.0	.70	5 11 4 6 3	PP PM JC SDR JDR	NA 52 41 33 26	100 85 60 50 45	8 4 2 4 58	DES JD CADD MBD TID	39.5 27 28 31 —	63 50 50 — —	Apple Manuf./Operational HQ, Cupertino, CA Arnold & Porter, New York & Washington D.C. 3COM Corporation Headquarters, Santa Clara, CA Latham & Watkins, Washington, D.C. Morgan/Olmstead/Kennedy/Gardner, Los Angeles	Norwest Corp. & Norwest Bank, Minneapolis Silicon Graphics Corp. Facilities, Santa Clara, CA Melnicov, Kaufman, et. al., Baltimore Morgan Stanley & Company, San Francisco Orrick, Herrington & Sutcliffe, San Francisco
46 (—)	**URS Consultants** Cleveland Atlanta, San Francisco, Singapore, Paramus, NJ; Columbus, OH	4.00	40.00	25.0	1.89	— 6 — 6 —	PP PM JC SDR JDR	— 50 — 25 —	— 60 — 40 —	7 — 4 1 25	DES JD CADD MBD TID	30 — 25 30 —	50 — 40 — —	Cleveland Convention Center, Cleveland Price Waterhouse, Cleveland Kaiser Permanente, Parma Coopers & Lybrand, Cleveland State Office Tower II, Columbus, OH	Ferro Corporation World Headquarters, Cleveland Wright-Patterson AFB, Dayton, OH West Virginia Univ. Cafeteria, Morgantown, WV Bond Court Building Renovation, Cleveland Akron City Hospital Office Building, Akron, OH
47 (61)	**LCP Associates, Inc.** New York	3.90	3.90	35.0	.50	5 10 1 7 —	PP PM JC SDR JDR	NA 55 47.5 37.5 —	125 90 70 70 —	9 3 2 2 46	DES JD CADD MBD TID	56.3 25 50 62.5 —	80 40 70 — —	Skadden Arps Slate Meagher & Flom, New York Phillips - Van Heusen, New York Bank Brussels Lambert, New York New York Stock Exchange, New York Harry M. Stevens, New Jersey	Skadden Arps Slate Meagher & Flom, New York Rabobank, New York Recruit USA, New Jersey Cartier Inc., Connecticut Rosenman & Colin, New York
48 (62)	**Sheridan Harinsky Associates, Inc.** New York Centerport, NY; Freehold, NY	3.90	4.10	14.0	2.85	2 5 — 4 4	PP PM JC SDR JDR	NA 40 — 30 18	100 100 — 75 45	4 2 2 2 29	DES JD CADD MBD TID	45 28 40 35 —	95 72 90 — —	Manufacturers Hanover Trust, New York Bankers Trust Company, New York Marine Midland Bank, New York Brookville Country Club, Glen Head, NY Chemical Bank, New York	Rockville Links Country Club, Rockville Ctr., NY The Pines at Greenville, Freehold, NY Manufacturers Hanover Trust, New York Bankers Trust Company, New York First Federal Savings & Loan, New York
49 (45)	**Whisler-Patri** San Francisco Los Angeles	3.86	9.00	58.0	2.00	1 5 5 1 3	PP PM JC SDR JDR	NA 55 37 32 21	125 100 78 55 44	6 6 3 1 33	DES JD CADD MBD TID	46.5 26 28 32 —	75 44 44 — —	San Francisco Centre, San Francisco First Interstate Bank, Regional HQ, San Francisco Barclay's Bank HQ, San Francisco Pacific Gas & Electric, San Francisco First Interstate Leasing Center, Cerritos, CA	Ritz Carlton Hotel, San Francisco East Bay Municipal Utility Dist. HQ, Oakland, CA Industrial Indemnity, San Francisco Fireman's Fund Insurance Co., HQ, Novato, CA Landels, Ripley & Diamond, San Francisco
50 (48)	**Gresham, Smith and Partners** Nashville, TN Birmingham, AL	3.82	14.83	82.1	1.93	1 2 — 1 —	PP PM JC SDR JDR	NA 40 — 30 —	100 75 — 54 —	14 5 — — 25	DES JD CADD MBD TID	31.8 17 — — —	68 45 — — —	Alabama Power Renovation, Birmingham, AL Balch & Bingham, Birmingham, AL Arthur Andersen, Nashville, TN City Center, Nashville, TN Apple Computer Inc., Nashville, TN	Saturn Northfield Building, Spring Hill, TN Am South Bank, Birmingham, AL Baptist Medical Center-Princeton, Birmingham, AL Port Columbus Airport Expansion, Columbus, OH
51 (—)	**Smith Hinchman & Grylls Associates, Inc.** Detroit Phoenix, Washington D.C.	3.75	25.00	65.2	2.17	1 3 — 1 —	PP PM JC SDR JDR	NA NA — NA —	NA NA — NA —	7 — 1 1 15	DES JD CADD MBD TID	NA — NA NA —	NA — NA — —	Renaissance Center Retail Redevelopment, Detroit Wayne County Building, Detroit Univ. of Michigan, Classroom & Lab., Flint, MI Aurora Young Adult Psychiatric Hospital, Detroit Ford Transmission & Chassis Office, Livonia, MI	Digital Equipment Corp., Livonia, MI Beckman Institute, Urbana-Champaign, IL Plant/Animal Biotech. Lab., Urbana-Champaign, IL Wayne State Univ. Clinical Research Bldg., Detroit US Army Ft. Waynewright Care Ctr., Fairbanks, AL
52 (—)	**The Phillips Janson Group** New York	3.74	3.98	44.2	.96	4 13 7 — 1	PP PM JC SDR JDR	NA NA NA — NA	128 81 61 — 35	6 5 — 1 46	DES JD CADD MBD TID	NA NA — NA —	71 45 — — —	On-Line Software International, Fort Lee, NJ Control Data Corporation, New York F. Schumacher & Co., Various Locations Chanel, Inc., New York 3M, New York	Loews Corporation, New York Swiss Re Holding Inc., New York Time, Inc., New York Chemical Bank, New York NBC, New York
53 (33)	**ASD, Inc.** Atlanta Washington, D.C.; Tampa, Fl.	3.68	4.60	85.9	2.60	8 8 — — —	PP PM JC SDR JDR	NA NA — — —	100 65 — — —	23 7 1 1 60	DES JD CADD MBD TID	NA NA NA NA —	45 35 35 — —	IBM at Atlantic Center Regional HQ, Atlanta III Corps and Fort Hood HQ, Killeen, TX NCNB National Bank of Florida HQ, Tampa, Fl. Anchor Glass Corporation, Tampa, Fl. The First, F.A., Orlando, Fl.	Fulton County Government Center, Atlanta Chase Manhattan Bank, Tampa, Fl. The Travelers Companies Regional HQ, Orlando, Fl. Largo Regional Service Center, Largo, Fl. Price Waterhouse, Atlanta
54 (72)	**Sverdrup Corporation** St. Louis Phoenix, Dallas, St. Louis, Washington, D.C.	3.67	425.62	42.0	2.20	1 7 3 6 10	PP PM JC SDR JDR	NA 45 36 27 18	100 70 50 40 36	13 3 2 3 54	DES JD CADD MBD TID	30 18 26 45 —	48 30 42 — —	Ernst & Whinney, Various Locations Commercial National Bank Peoria, Peoria, IL Southwestern Bell, St. Louis Compri Hotel, St. Louis MCI, Dallas	

NA indicates information not available — indicates information not applicable to category and/or firm.

55 (60)	**Robinson Mills + Williams (RMW)** **San Francisco** San Jose, CA; Walnut Creek, CA	3.67	6.65	40.3	1.04	9 8 6 — —	PP PM JC SDR JDR	NA 49.5 33.4 — —	NA NA NA — —	16 5 2 — 46	DES JD CADD MBD TID	33.3 21.2 30 — —	NA NA NA — —	Bronson, Bronson & McKinnon, San Francisco Santa Clara Valley Medical Center, San Jose, CA One Bush Street, San Francisco Claremont Hotel & Resort Spa, Oakland, CA San Jose Museum of Art, San Jose, CA	505 Montgomery Street, San Francisco Apple City Center, Cupertino, CA Hitachi America Ltd. Regional HQ, Brisbane, CA Offices Pillsbury, Madison & Sutro, San Francisco Port of Oakland, HQ, Oakland, CA
56 (67)	**DBI** **Washington, D.C.** Vienna, VA	3.64	5.20	98.7	2.90	2 13 4 9 2	PP PM JC SDR JDR	NA 41 25 18.5 16.6	105 75 68 34 32	8 3 6 2 60	DES JD CADD MBD TID	31.2 16.5 21 24.6 —	72 34 85 — —	McDermott, Will & Emery, Washington, D.C. Blue Cross/Blue Shield, Washington, D.C. Madison National Bank Operations, Lanham, MD Maxima Corporation, Rockville, MD Ropes & Gray, Washington, D.C.	Network Solutions, Herndon, VA C&P, Silver Spring, MD Fairfax Cty. Library, Admin. Offices, Fairfax, VA Venable, Baetjer & Howard, McLean, VA Dean Witter, Alexandria, VA
57 (64)	**Architectural Interiors, Inc./ Interior Design Inc.** **Chicago & Los Angeles** New York, London, Paris, Tel Aviv	3.56	3.75	88.0	5.84	3 9 — 5 —	PP PM JC SDR JDR	NA NA — NA —	103 70 — 50 —	16 10 2 2 56	DES JD CADD MBD TID	NA NA NA NA —	60 25 53 — —	First Capitol Life Insurance, San Diego American Medical Association, Chicago Arco, Los Angeles Rocketdyne Div. Rockwell Corp., Canoga Park, CA Bank of America, Pasadena, CA	The Northern Trust Company, Chicago Marks & Spencer, London City of Los Angeles, Los Angeles Cook County Circuit Court, Cook County, IL The Saturn Corp./General Motors, Spring Hill, TN
58 (94)	**Architectural Interiors** **Washington, D.C**	3.48	3.48	28.9	1.43	5 6 — 2 5	PP PM JC SDR JDR	NA 42 — 34 22.5	85 75 — 60 37	5 6 4 2 50	DES JD CADD MBD TID	32 20.5 24.8 24.8 —	55 35 45 — —	Freddie Mac Interim HQ Relocation, Reston, VA Freddie Mac Point West Plaza, Tysons Corner, VA Citicorp Savings of Washington, Washington, D.C. Aerospace Industries Assoc., Washington, D.C The Carlyle Group, Washington, D.C.	Fannie Mae HQ Renovation, Washington, D.C. Public Admin. & Services Ctr., Washington, D.C. Proserve, Inc., Arlington, VA Xerox Corporation, Washington, D.C. Highway Safety Insurance Inst., Washington, D.C.
59 (63)	**Deupi and Associates, Inc.** **Washington, D.C.** Arlington, VA	3.41	3.79	175.6	4.32	2 16 — 13 2	PP PM JC SDR JDR	NA 45 — 30 25	90 75 — 50 40	9 5 6 — 58	DES JD CADD MBD TID	45 35 35 — —	55 45 60 — —	Fannie Mae Headquarters, Washington, D.C. Bishop Cook Purcell & Reynolds, Washington, D.C. Dechert Price & Rhoads, Washington, D.C. Dunnells Duvall Bennett & Porter, Washington, D.C. U.S. Patent Office, Arlington, VA	Nat'l Rural Electrical Assoc., Washington, D.C. U.S. Air, Arlington, VA Social Security, Falls Church, VA G.S.A. Gateway North, Arlington, VA NAROTTSA, Arlington, VA
60 (85)	**Daroff Design Inc. & DDI Architects PC** **Philadelphia**	3.37	3.46	160.0	2.15	3 6 3 6 4	PP PM JC SDR JDR	NA 50 50 50 30	163 80 80 80 50	6 5 3 2 46	DES JD CADD MBD TID	50 28 30 28 —	75 35 40 — —	Prudential EHO, Fort Washington, NJ Revlon HQ Relocation, New York Philadelphia Gas Works, Philadelphia Great Valley Conference Center, Philadelphia Hoyle Morris & Kerr Law Offices, Philadelphia	Prudential South Plainfield, South Plainfield, NJ Capital Blue Cross, Harrisburg, PA Children's Seashore House, Philadelphia Mobil Oil Regional Operations Ctr., Philadelphia Comcast Headquarters Relocation, Philadelphia
61 (30)	**The Austin Company** **Cleveland** Atlanta, Houston, New York, Cincinnati Cleveland, Dallas, Anchorage, AK; Clayton, MO; Des Plaines, IL; Edina, MN	3.36	56.00	41.0	2.00	— 18 — — —	PP PM JC SDR JDR	— 44.5 — — —	— 53 — — —	20 14 7 3 77	DES JD CADD MBD TID	32.5 21.5 22.5 NA —	42 32 32 — —	Salt River Project, Phoenix University of Chicago, Chicago Boeing Military Airplane Co., Wichita, KS North Pier Terminal, Chicago N.V.L.S., Schiphol Airport, The Netherlands	Nixdorf Computer, Tres Cantos, Spain United Airlines, Sterling, VA Seattle Times, Seattle Barnett Bank, West Palm Beach, FL Upjohn Corporation, Kalamazoo, MI
62 (56)	**Interprise Associates** Dallas, Los Angeles, Chicago Oakbrook, IL	3.33	3.40	336.0	17.62	6 11 6 4 4	PP PM JC SDR JDR	NA 42 33 28 20	110 80 70 60 45	9 7 5 3 66	DES JD CADD MBD TID	27 20 30 42 —	60 40 60 — —	AT&T, Dallas Kenneth Leventhal, Chicago Southmark Mortgage Corp. of America, Dallas Frandzel & Share, Los Angeles Pepsi Regional HQ, Chicago, Dallas, Los Angeles	IBM, Chicago Wood Dalton Phillips Mason & Rowe, Chicago NutraSweet Headquarters, Chicago Equitable Financial Companies, Chicago Tellabs, Inc., Lisle, IL
63 (90)	**Schafer Associates, Inc.** **Oak Brook, IL** Pasadena, CA	3.23	3.40	40.8	1.10	2 10 5 16 —	PP PM JC SDR JDR	NA 50.7 37.7 23.8 —	140 80 60 36 —	2 11 — 2 56	DES JD CADD MBD TID	47.5 24 — 31.5 —	75 40 — — —	Spiess, Mt. Prospect, IL Carson Pirie Scott, Norridge, IL Carson Pirie Scott, Chicago Ridge, IL Younkers, Des Moines, IA Parisian, [illegible]	Proffitt's, Asheville, NC Belk, Winston Salem, NC Belk, Greensboro, NC Carson Pirie Scott, Chicago Parisian, Sarasota, FL
64 (165)	**Jon Greenberg & Associates, Inc.** **Berkley, MI** San Francisco	3.14	4.00	[illegible]	2.04	2 10 — 15 8	PP PM JC SDR JDR	NA 51.5 — 32.6 23.1	100 75 — 45 33	6 — 4 1 56	DES JD CADD MBD TID	48.3 — NA NA —	60 — NA — —	Joslin's (Mercantile), Greeley, CO Lerner Stores (The Limited), Columbus, OH Henry's, Town East Square, Wichita, KS Newport Stationers, Corporate Park, Irvine, CA Gilmore Brothers, Maple Hill Mall, Kalamazoo, MI	Joslin's (Mercantile), Colorado Springs, CO Cornell University Bookstore, Ithaca, NY Sizes Unlimited/Lerner Woman, New Rochelle, NY Pinstripes Petites (Sears), Minneapolis Abercrombie & Fitch (The Limited), Columbus, OH
65 (76)	**The H. Chambers Company** **Baltimore** Lyford Cay, Nassau, Bahamas	3.01	3.54	41.8	1.43	2 2 5 2 2	PP PM JC SDR JDR	NA 50 38 28 18	100 90 75 45 40	11 7 2 2 39	DES JD CADD MBD TID	28 18 22 NA —	60 45 60 — —	National Academy of Science, Washington, D.C. Baltimore Country Club, Baltimore Johns Hopkins Hospital, Baltimore Dover AFB, CES Headquarters, Dover, DE Bahamas Electric Company, Nassau, Bahamas	Sitmar Cruise Lines, Trieste, Italy Merrill Lynch, Baltimore Reading Country Club, Reading, PA National Insurance Board, Nassau, Bahamas Hazel, Thomas, Fiske, et. al, Richmond, VA
66 (102)	**Ballinger** **Philadelphia**	3.00	10.00	125.0	2.00	— 5 — — 1	PP PM JC SDR JDR	— 50 — — 22	— 82 — — 36	7 6 2 2 25	DES JD CADD MBD TID	30 22 22 40 —	50 36 36 — —	Blue Cross, Philadelphia Ford, Lansdale, PA CHOP, Philadelphia First Pennsylvania Bank, Philadelphia Armstrong World Industries, Lancaster, PA	Bryn Mawr Hospital, Bryn Mawr, PA Johnson & Johnson, New Brunswick, NJ Meridian Bank, Philadelphia American Cyanamid, Princeton, NJ SmithKline Beckman [illegible], Various

• Rankings determined by fees before rounding. All figures have been rounded off for the purpose of this ranking.

RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEES IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	STAFF DATA								1988 INSTALLATIONS	1989 INSTALLATIONS
						NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR	NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR		
67 (73)	**J. Gordon Carr & Associates, P.C.** New York	2.92	3.10	62.5	1.00	4 5 — 5 4	PP PM JC SDR JDR	NA 49.5 — 36 18	98 78 — 58 33	9 5 2 2 41	DES JD CADD MBD TID	46.3 25 30 37.5 —	71 43 40 — —	American Re-Insurance, San Francisco Lifetime Cable, Queens, NY Sullivan & Cromwell, New York Chemical Bank, New York Tullett & Tokyo Forex, New York	U.L. Laboratories, San Francisco U.S. Trust Co. Chemical Bank, New York Sullivan & Cromwell, New York Brown & Wood, New York
68 (158)	**The Kling-Lindquist Partnership, Inc.** Philadelphia	2.91	29.08	90.0	1.20	1 7 — 2 —	PP PM JC SDR JDR	NA 60 — 30 —	120 100 — 55 —	11 6 7 2 38	DES JD CADD MBD TID	40 20 35 30 —	63 35 50 — —	Eastman Pharmaceutical, PA Chase Manhattan, Garden City, NY EXXON, Florham Park, NJ Provident National Bank, Philadelphia IBM, Valley Forge, PA	Drexel Engineering Bldg., Philadelphia Ft. Belvoir, VA Guardian Headquarters, New York Merrill Lynch, Washington, D.C. Glaxo, NC
69 (101)	**Ehrlich-Rominger Architects** Los Altos, CA San Francisco & Sacramento, CA	2.87	8.20	90.0	2.50	3 16 9 16 17	PP PM JC SDR JDR	NA 45.5 35 33.5 NA	NA NA NA NA NA	— — 4 3 86	DES JD CADD MBD TID	— — NA 45 —	— — NA — —	Hewlett-Packard Mayfield Mall, Mountain View, CA Ford Aerospace & Commun. Corp., San Jose, CA Tandem Computers Headquarters, Cupertino, CA Intel Technical Center, Santa Clara, CA Micron Technology Office Building, Boise, ID	Hewlett-Packard Building 4, Roseville, CA Hewlett-Packard Building 54, Santa Clara, CA Micron Technology Fab Facility, Boise, ID Univ. of CA Davis Engineering Building, Davis, CA Measurex Corporation, Cupertino, CA
70 (83)	**Quantrell Mullins + Associates, Inc.** Atlanta	2.82	2.82	35.0	.98	2 5 — 2 —	PP PM JC SDR JDR	NA NA — NA —	110 75 — 65 —	9 1 1 1 25	DES JD CADD MBD TID	NA NA NA NA —	60 45 55 — —	First Union Nat'l Bank-Exec. Offices, Charlotte, NC Cushman & Wakefield, Atlanta Egon Zehnder Internatio[illegible] Atlanta Sci Trek Science Museum, Atlanta Womens Pavilion Greenville Hosp., Greenville, SC	Joh. A. Benckiser, Ludwigshafen, W. Germany Smith, Helms, Mullis & Moore, Greensboro, NC Halstead Industries, Greensboro, NC Emory University Hospital, Atlanta L.J. Hooker Developments, Atlanta
71 (79)	**BSHA, Inc.** San Diego Colorado Springs, CO	2.78	6.50	40.0	2.14	2 4 — — 1	PP PM JC SDR JDR	NA 25 — — 20	85 45 — — 30	5 2 1 2 19	DES JD CADD MBD TID	30 22 35 40 —	53 35 60 — —	Fireman's Fund, San Diego Rio Vista Tower, San Diego San Diego Water & Utilities, San Diego Cumberland, Colorado Springs, CO [illegible] Ross, San Diego	La Jolla Center II, San Diego San Diego Design Center, San Diego Ernst & Whinney, San Diego San Diego Rehabilitation Hospital, San Diego Pacific Corporate Center, San Diego
72 (105)	**Davis & Carter, P.C.** McLean, VA Washington, D.C.	2.72	9.13	65.0	3.00	2 8 4 — —	PP PM JC SDR JDR	NA 50 40 — —	125 73 50 — —	6 3 6 2 40	DES JD CADD MBD TID	31 20 27 32 —	57 43 52 — —	Marriott Hotel at Worldgate, Fairfax County, VA United Services Automobile Assoc., Reston, VA HTFB&H, Falls Church, VA GTSI, Fairfax County, VA Mobesco Corporation, Fairfax, VA	United Jersey Bank, Hackensack, NJ The Tower Club, Tysons Towers, Vienna, VA Devon Park/Defense Mapping, Loudon Cty., VA Worldgate Office Park, Phase II, Fairfax City, VA Rockspring Plaza, Bethesda, MD
73 (59)	**Vickrey Ovresat Awsumb Associates Inc.** Chicago Orlando, FL	2.69	5.76	40.5	1.00	8 6 7 7 12	PP PM JC SDR JDR	NA 42.9 37 28.9 20	110 95 60 50 40	9 8 4 2 75	DES JD CADD MBD TID	37.8 24 27 21.7 —	65 50 50 — —	Comdisco, Inc., Rosemont, IL Advance Transformer Company, Rosemont, IL Vedder, Price, Kaufman & Kammholz, Chicago Marriott Suites Hotel, Rosemont, IL IBM Corporation, Lexington, KY	J. Walter Thompson, Chicago First Division Museum at Cantigny, Wheaton, IL Yacht Club & Beach Hotels, Walt Disney World, FL Peabody Hall, Univ. of Florida, Gainesville, Fl Arts Complex, Univ. Central Florida, Orlando, FL
74 (103)	**Steinmann Grayson Smylie** Los Angeles Phoenix	2.64	2.64	20.9	.90	3 4 2 — —	PP PM JC SDR JDR	NA 43 35 — —	90 65 50 — —	9 3 2 2 31	DES JD CADD MBD TID	38.5 24 28 48 —	58 45 50 — —	Compu Tax, Torrance, CA Hughes Aircraft Co. Research Labs, Malibu, CA Transamerica/Occidental Life, Los Angeles Allied Signal Labs, Westlake Village, CA State Farm Insurance, Westlake Village, CA	Beverly Hills Civic Center, Beverly Hills, CA National Medical Enterprises, Santa Monica, CA San Joaquin Human Services, Stockton, CA San Joaquin Cty. Sherriff/Jail HQ, Stockton, CA Montgomery Engineering Corp. HQ, Pasadena, CA
75 (86)	**Eaton Design Group, Inc.** McLean, VA	2.60	2.60	24.6	.82	2 8 3 9 3	PP PM JC SDR JDR	NA 35 27 25 14	125 55 48 54 32	6 3 6 2 50	DES JD CADD MBD TID	29.3 15 24 35 —	49 45 30 — —	Mobil - Fair Oaks Facility, Fairfax, VA Dyncorp, Reston, VA Contel Information Systems Co., Reston, VA U.S. Marshalls Service, Alexandria, VA KBK Communications, Ltd., Vienna, VA	Drug Enforcement Administration, Alexandria, VA ICF, Inc., Fairfax, VA Science Applications International, McLean, VA Institute for Defense Analysis, Alexandria, VA Software Productivity Consortium, Herndon, VA
76 (70)	**Soo Kim Associates, Inc.** New York	2.55	2.55	35.0	.80	3 4 3 2 5	PP PM JC SDR JDR	NA 45 32 35 25	90 70 55 60 40	5 3 3 — 32	DES JD CADD MBD TID	35 22 35 — —	60 35 60 — —	Bank of America, New York The Greater New York Savings Bank, New York McDonnell Douglas, New York Shawmut Trust Co., New York	The Greater New York Savings Bank, New York Bulgari, New York T.C. Ziraat Bankasi, New York Amstar Corporation, New York
77 (65)	**Butler Rogers Baskett** New York	2.55	3.00	47.3	.53	4 4 3 3 4	PP PM JC SDR JDR	NA 50 43 42 25	125 83 72 70 42	7 3 3 1 39	DES JD CADD MBD TID	43 25 38 45 —	71 42 63 — —	Silver Screen Management, Inc., New York The Buckley School, New York LeBoeuf, Lamb, Leiby & MacRae, New York Apple Computer International, Paris University of Hartford (Housing), Hartford, CT	Lord Day & Lord, Barrett Smith, New York Morrison & Foerster, New York Carter, Ledyard & Milburn, New York Davis & Gilbert, New York Charlotte Hungerford Hospital, Torrington, CT

NA indicates information not available — indicates information not applicable to category and/or firm.

78 (58)	**RNL Design** Denver Los Angeles	2.53	6.32	55.0	1.20	2 4 3 1 —	PP PM JC SDR JDR	NA 34 29 33 —	125 57 46 53 —	4 2 3 2 25	DES JD CADD MBD TID	39.5 21 21 20 —	63 34 34 — —	Manville Corporation, Denver Ohmeda, Boulder, CO U.S. West Communications, Denver Capital Federal Savings, Denver First Interstate Bank, Denver	Beau Monde Shopping Ctr., Greenwood Village, CO Lowry AFB, Denver Host Marriott Corporation, Denver First Interstate Bank of Idaho, Boise, ID State of Colorado, DYS, Grand Junction, CO
79 (92)	**Ward-Hale Design Associates, Inc.** Washington, D.C. Vienna, VA	2.51	2.51	35.0	1.25	3 6 2 1 2	PP PM JC SDR JDR	NA 45 NA 40 26	85 75 65 55 35	6 4 2 2 35	DES JD CADD MBD TID	36 26 26 28 —	50 35 35 — —	Columbia First Fed'l S & L Assoc., Arlington, VA Mortgage Bankers Association, Washington, D.C. The Washington Home, Washington, D.C. Saatchi & Saatchi, Washington, D.C. Student Loan Marketing Assoc., Washington, D.C.	Hechinger Corporation, Landover, MD Seventh Day Adventist, HQ, Silver Spring, MD Citizens Bank of Maryland, Columbia, MD Group Health Association, Washington, D.C. Sovran Bank, Bethesda, MD
80 (141)	**Hansen Lind Meyer, Inc.** Iowa City, IA Chicago, New York, Baltimore, Denver, Orlando & West Palm Beach, FL	2.50	25.02	116.5	3.30	— — — 1 2	PP PM JC SDR JDR	— — — 16.5 15.5	— — — 31 29	7 2 — — 12	DES JD CADD MBD TID	32.3 17.5 — — —	61 33 — — —	Saint Joseph Hospital, Ft. Worth, TX Ruby Memorial Hospital, Morgantown, WV Human Bio. Research Facility, UIHC, Iowa City, IA Mercy Hospital, Des Moines, IA Federal Correctional Institution, Marianna, FL	Arnold Palmer Children's Hospital, Orlando, FL Mary Greeley Medical Center, Ames, IA Azalea Trace, Pensacola, FL Psychiatric Pavilion, UIHC, Iowa City, IA Harrogate Life Care Services, Lakewood, NJ
81 (91)	**Chaix & Johnson International, Inc.** Los Angeles London, Singapore	2.50	2.92	85.0	1.30	4 5 4 4 5	PP PM JC SDR JDR	NA 52 41.6 37.8 22	NA 75 60 55 35	8 4 — — 46	DES JD CADD MBD TID	54 26 — — —	78 40 — — —	The Daimaru, Inc. (Dept. Store), Kobe, Japan U. Yamane, Ltd. (Shop. Ctr), Pearl City, Hawaii Grandella, Chihuahua, Mexico Marui Imai Co., Ltd. (Restaurant), Sapporo, Japan U. Yamane, Ltd. (Shop. Ctr.), Honolulu	Melbourne Central Shop. Ctr., Melbourne, Australia Changi Airport PTB II, Singapore Marui Imai Co., Ltd., Hakodate, Japan Matsuya Co., Ltd. - Ginza, Tokyo Pacific Rim Leisure (Shop. Ctr.), Cairns, Australia
82 (89)	**John Wolcott Associates** Culver City, CA Irvine, CA	2.48	2.75	46.0	1.15	2 7 3 2 2	PP PM JC SDR JDR	NA 48 37 40 30	125 85 65 65 50	6 5 1 1 35	DES JD CADD MBD TID	34 24 30 35 —	60 40 50 — —	DMB&B Advertising, Los Angeles & San Francisco Toyota Motor Sales, Torrance, CA J.D. Power & Associates, Agoura Hills, CA Brinderson Towers, Irvine, CA Grey Advertising, Los Angeles	Bugle Boy HQ, Simi Valley, CA P.I.P. Printing HQ, Calabasas, CA Jon Douglas Realty, Los Angeles The Travelers Urban Div., Westwood, CA 3-D Systems, Valencia, CA
83 (10)	**STV/Michael Lynn & Assoc.** New York Boston, Baltimore Chicago, Los Angeles, Stratford, CT; Plainview & Rochester, NY; Jersey City, NJ	2.47	5.50	52.0	1.00	3 6 6 15 20	PP PM JC SDR JDR	NA NA NA NA NA	48 73 73 58 58	9 2 5 2 76	DES JD CADD MBD TID	NA NA NA NA —	73 73 58 — —	The Port Authority of NY & NJ, WTC HQ, New York NYNEX Science & Tech. Ctr., White Plains, NY 300 Park Avenue, New York Trifari/Marvella Showroom & HQ, New York Frank Crystal & Co. Offices, New York	Naval Aircraft Systems, Patuxent River, MD 250 West Street Office Building, New York Agency for Child Development, New York
84 (68)	**Forrest/Bodrug Partners, Inc.** Toronto Montreal, Ottawa, Ontario; Calgary, Alberta; West Palm Beach, FL	2.31	2.57	35.8	1.84	4 9 3 4 2	PP PM JC SDR JDR	NA 42 40 35 21	100 75 75 60 40	10 3 2 3 47	DES JD CADD MBD TID	33.5 20 24 40 —	55 40 60 — —	Canterra Energy, Calgary, Alberta, Canada Peterson, Howell & Heather, Toronto Guaranty Trust - Computer Center, Toronto Bank of Montreal, Toronto Digital Equipment, Montreal	Guaranty/Central Trust - Offices, Toronto NCR Canada, Ltd., Toronto
85 (99)	**The Stubbins Associates, Inc.** Cambridge, MA	2.24	15.30	25.0	.95	2 2 1 1 1	PP PM JC SDR JDR	NA 50 40 30 22	NA 91 72 54 40	5 3 — 1 18	DES JD CADD MBD TID	39.5 26 — 34 —	72 47 — — —	Della Femina McNamee, WCRS, Boston Atlantic Mutual Companies, New York Univ. of Massachusetts, Amherst, MA ITEK Graphix Corporation, Waltham, MA Tower Center II, East Brunswick, NJ	Bank One, Indianapolis Atlantic Mutual Companies, Giralda Farms, NJ Systems Mgmt. Engineering Facility, Bedford, MA
86 (98)	**TEC 3** New York	2.23	2.23	29.3	.65	3 7 2 8 2	PP PM JC SDR JDR	NA 43 36 32 24	125 70 60 50 40	6 1 1 1 34	DES JD CADD MBD TID	40 29 35 28 —	58 45 60 — —	Digital Computers, Cannes, France Xerox, New York The Putnam Publishing Group, New York Huls America, Piscataway, NJ Bergen County Admin. Office, Hackensack, NJ	Matthew Bender, New York Cambridge University Press, New York Direct Marketing, New York
87 (106)	**The Grad Partnership** Newark, NJ	2.22	13.00	38.9	.53	1 4 2 — —	PP PM JC SDR JDR	NA NA NA — —	100 90 60 — —	10 — 1 — 18	DES JD CADD MBD TID	NA — NA — —	70 — 35 — —	Pru Capital Markets, Newark, NJ Nokia, Basking Ridge, NJ First Fidelity, Newark, NJ Ernst & Whinney, Newark, NJ Selective Insurance Co., Branchville, NJ	First Fidelity Bank HQ, Princeton, NJ Nat West Bank Corp. NJ, Jersey City, NJ Newsweek, Inc., Mountain Lakes, NJ Copy Tech. Inc., Newark, NJ IBM, Camphill, PA
88 (161)	**Leason Pomeroy Associates, Inc.** Orange, CA Los Angeles	2.19	13.71	54.0	1.80	— 3 3 2 —	PP PM JC SDR JDR	— 38 33 28 —	— 68 58 52 —	5 — — — 14	DES JD CADD MBD TID	36 — — — —	58 — — — —	AST Research Group HQ, Irvine, CA Sherwood Medical, San Diego E.R. Squibb & Sons, Irvine, CA Unisys, Pasadena, CA CalMat Corporate HQ, Los Angeles	Home Savings of America, City of Industry The City Tower, Orange, CA Union Bank Square, Orange, CA 500 Central, Glendale, CA
89 (81)	**Ford & Earl Associates, Inc.** Warren, MI Troy, MI; Ft. Lauderdale, FL	2.16	2.71	74.6	1.50	3 4 2 3 —	PP PM JD SDR JDR	NA 45 36 30.5 —	90 65 65 50 —	3 5 1 1 26	DES JD CADD MBD TID	33 30 65 20.4 —	65 50 50 — —	Crain Publishing Co., Chicago Misc. Hospital Work, Detroit Unisys, Detroit Ford Motor Co., Dearborn, MI E.Y. Lutz, Birmingham, MI	Charlotte Federal Reserve Bank, Charlotte, NC Standard Federal Bank, Troy, MI City Bank, Honolulu Misc. Hospital Work, Detroit, MI Ford Motor Co., Dearborn, MI

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RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEES IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	STAFF DATA								1988 INSTALLATIONS	1989 INSTALLATIONS
						NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR	NO. OF EMPLOYEES	CATEGORY	AVERAGE SALARY IN $1,000's	AVG. BILLING RATE $/HOUR		
90 (93)	**The Eggers Group, P.C.** New York	2.14	4.86	75.0	.50	8 6 6 10 14	PP PM JC SDR JDR	NA 50 45 37.5 25	105 95 80 65 45	6 2 5 3 72	DES JD CADD MBD TID	47.5 27.5 27.5 40 —	88 50 50 — —	Macy's Tysons II, Tysons Corner, VA KLM Royal Dutch Airlines, Elmsford, NY Thomson-McKinnon, New York Port Authority, Various Pepsico, Somers, NY	Macy's Pentagon City, Pentagon City, VA FBI, New York
91 (159)	**Einhorn Yaffee Prescott Architecture & Engineering** Albany, NY	2.13	8.29	30.8	.23	2 2 — — —	PP PM JC SDR JDR	NA 45 — — —	100 85 — — —	4 2 1 — 12	DES JD CADD MBD TID	30 20 22 — —	45 35 37 — —	Ellis Hospital, Schenectady, NY New York State Education Department, Albany, NY General Electric Co., Bldg. 40, Schenectady, NY NYNEX Corp., Albany, NY Veterans Admin. Ward Mod. Project, Albany, NY	Dutchess County, Poughkeepsie, NY Albany County Courthouse, Albany, NY Kings Park Psychiatric Center, New York Albany County Airport, Colonie, NY
92 (107)	**Tardy & Associates, Inc.** San Francisco	2.10	2.10	21.4	.39	2 4 2 3 1	PP PM JC SDR JDR	NA 60 40 30 22.8	125 80 60 45 40	4 1 — — 22	DES JD CADD MBD TID	28.5 27 23.4 — —	45 40 — — —	California Ctr-Spieker Partners, Sacramento, CA Vicom/FCB, San Francisco Icehouse I & II, Icehouse/Nestors, San Francisco Rincon Ctr., Perini Land & Dev't, San Francisco Gateway Office Park, San Jose, CA	Rincon Ctr., Perini Land & Dev't, San Francisco Gaston and Snow, San Francisco Sedgwick, Detert, Moran & Arnold, San Francisco L.F. Rothschild, Inc., San Francisco Sedgwick, Detert, Moran & Arnold, Los Angeles
93 (118)	**GK Associates** New York Edison, NJ	2.10	2.10	40.0	.80	2 5 2 3 4	PP PM JC SDR JDR	NA 45 35 35 25	125 65 55 55 45	3 4 3 1 32	DES JD CADD MBD TID	40 25 35 30 —	50 45 50 — —	Home Life Insurance Company, Piscataway, NJ U.S. News & World Report, Washington, D.C. Cameron & Colby, New York Degussa Corporation, Ridgefield Park, NJ Constitution Re-Insurance, New York	Tudor Investment Corporation, New York U.S. News & World Report, New York U.S. News & World Report, Los Angeles Home Life Insurance Company, Piscataway, NJ Constitution Re-Insurance, New York
94 (180)	**Curtis Cox Kennerly** Philadelphia	2.08	6.80	10.0	.55	— 4 4 1 2	PP PM JC SDR JDR	NA 45 30 26 21	— 75 48 42 34	5 1 2 3 25	DES JD CADD MBD TID	38 20 21.5 32 —	61 32 35 — —	Lewis Gilman & Kynett, Philadelphia IMS Totowa, Totowa, NJ Roach Brothers, Devon, PA LNP Engineering Plastics, Exton, PA Haworth Showroom, Philadelphia	Sorbus, Inc., Frazer, PA Alco Standard Corporation, Wayne, PA AT&T, Communications Tech. Ctr., Bedminster, NJ Provident National Bank, Berwyn, PA Virginia Hotel, Cape May, NJ
95 (74)	**ADD, Inc.** Cambridge, MA Washington, D.C.	2.08	6.50	39.0	1.20	3 3 2 — 3	PP PM JC SDR JDR	NA 40 35 — 26	120 77 70 — 49	7 3 4 2 30	DES JD CADD MBD TID	38.5 32 28 27 —	75 60 49 — —	IBM/404 Wyman, Waltham, MA Microcom, Norwood, MA Fidelity, Boston Simon & Schuster, Needham, MA The New England, Boston	Meditech, Norwood, MA American International Group, Boston IBM/610 Lincoln, Waltham, MA Sun Microsystems Procter & Gamble, Braintree, MA
96 (—)	**Hendrick Associates, Inc.** Atlanta	2.08	2.08	52.0	1.58	3 6 — — —	PP PM JC SDR JDR	NA NA — — —	95 75 — — —	13 3 2 1 33	DES JD CADD MBD TID	NA NA NA NA —	53 35 25 — —	Contel Corporation, Administrative HQ, Atlanta SouthTrust Corporation, Birmingham, AL Norrell Corporation, Atlanta Contel Corporation, Data Center, Atlanta Chubb Group Insurance Companies, Atlanta	Trinity Washington, Atlanta Oglethorpe Power Corporation, Atlanta 254 Washington, Atlanta Prudential Bache, Atlanta RTM, Atlanta
97 (142)	**Heery Interiors/Heery International** Atlanta London, Baltimore, New York, Seattle Houston, Los Angeles, Philadelphia Salt Lake City, Sacramento, CA	2.04	2.43	27.1	2.37	2 5 — 1 —	PP PM JC SDR JDR	NA 50 — 38 —	125 65 — 60 —	5 4 3 — 23	DES JD CADD MBD TID	37.5 20 30 — —	60 40 42 — —	Digital Equipment Corporation, Atlanta Women's Specialty Retailing Group, Enfield, CT Alston & Bird, Atlanta Drew, Eckl & Farnham, Atlanta Electrolux - Phase I, Atlanta	MCI, Atlanta The American Cancer Society, Atlanta Electrolux - Phase II, Atlanta Typhoon Lagoon - Walt Disney World, Orlando, FL
98 (127)	**Dean Tucker Shaw, Inc.** Boston	2.04	2.32	30.0	.40	4 11 4 3 3	PP PM JC SDR JDR	NA 38 28 28 25	100 60 45 45 35	5 5 2 2 48	DES JDR CADD MBD TID	28 25 25 NA —	45 35 35 — —	Ocean Spray Cranberries, Inc., Middleborough, MA Plymouth Rock Assurance Co., Boston Digital Equipment Corp. Bldg. 2, Littleton, MA Winchester Hosp. Obstetrics Dept., Winchester, MA Gaston & Snow Law Firm, Boston	15 Beacon Street, Boston Digital Equipment Corp. Bldg. 1, Littleton, MA Palmer & Dodge Law Firm, Boston Gaston & Snow Law Firm, Boston Tobey Hospital, Wareham, MA
99 (51)	**Planned Expansion Group, Inc.** White Plains, NY	2.02	3.20	40.0	.55	3 6 8 5 2	PP PM JC SDR JDR	NA 60 45 40 22	150 120 85 80 45	2 — 2 1 36	DES JD CADD MBD TID	35 — 40 40 —	75 — 80 — —	March of Dimes Corp. HQ, White Plains, NY Kennedy Retail Center, Union City, NJ Oppenheimer & Co., Seattle Oppenheimer & Co., Los Angeles White Plains - Public Safety, White Plains, NY	Somers Square, Somers, NY Crosspointe Plaza, Naugatuck, CT
100 (109)	**KZF Incorporated** Cincinnati Edgewood, KY; Lawrenceburg, IN	1.96	8.43	37.0	1.40	2 1 1 — —	PP PM JC SDR JDR	NA NA NA — —	NA NA NA — —	6 2 1 — 13	DES JD CADD MBD TID	NA NA NA — —	NA NA NA — —	Grand Baldwin Bldg./KZF Corp. Offices, Cincinnati Bethesda Hospital Women's Program, Cincinnati St. Rita School for the Deaf, Cincinnati Bethesda Doctors' Office Building, Cincinnati [illegible] Chemical Corporate HQ, Cincinnati	Logistical Systems Operations Center, Ohio RiverCenter Embassy Suites Hotel, Covington, KY Ohio Dept. of Transportation HQ, Columbus, OH Renaissance Investments, Inc. HQ, Cincinnati [illegible] Properties Office Building, Cincinnati

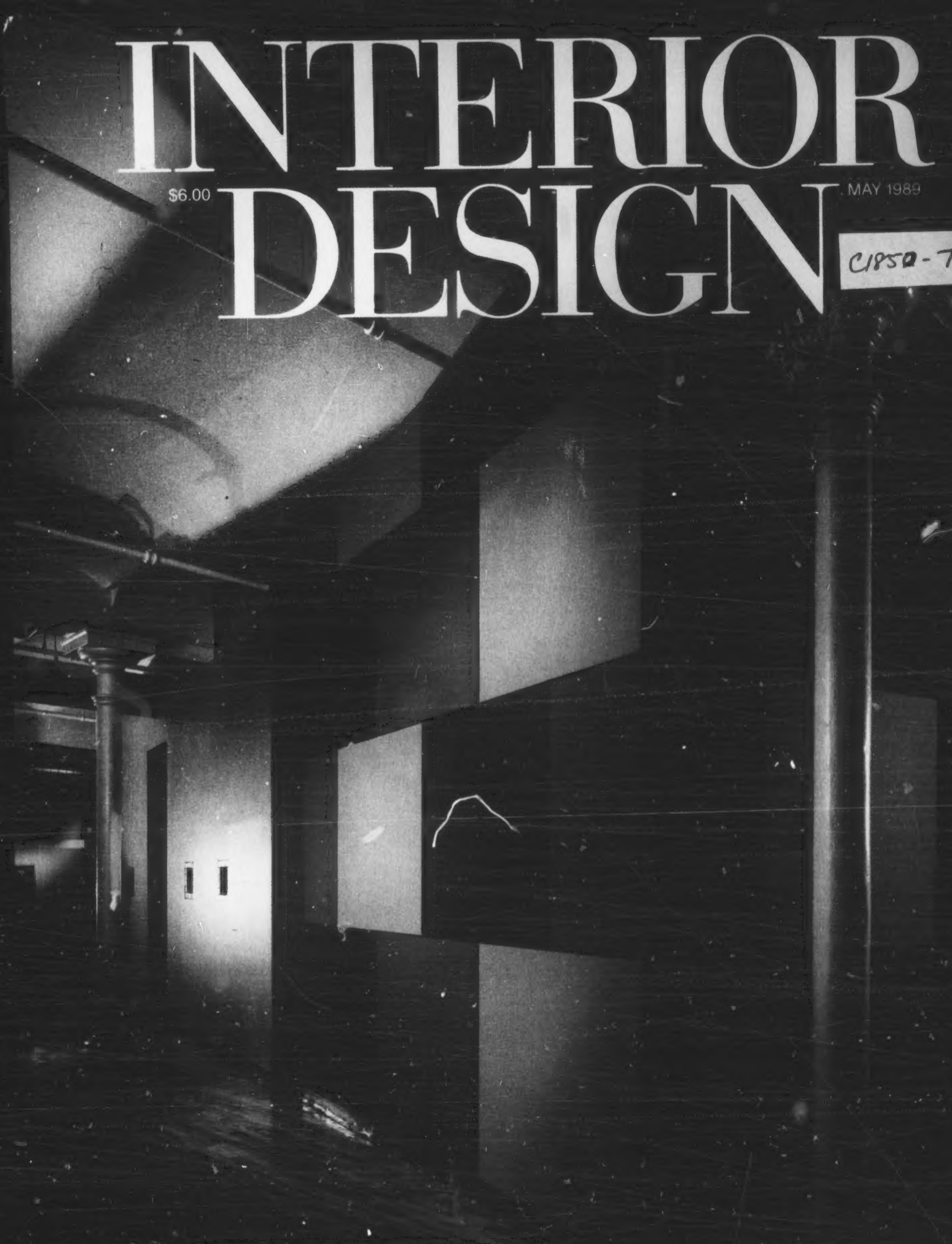
NA indicates information not available — indicates information not applicable to category and/or firm.

* Rankings determined by fees before rounding. All figures have been rounded off for the purpose of this ranking.

INTERIOR DESIGN

$6.00
MAY 1989

C1850-7



NEOCON PREVIEW

NEW WORK BY BAUSMAN GILL • LAW OFFICES • JEAN NOUVEL

DIFFA Announces Year-End Grants

The board of trustees of DIFFA (the Design Industries Foundation for AIDS) has announced the awarding of a number of year-end grants to AIDS-related groups nationwide. The 20 recipients of these grants, which total $376,900, include organizations that provide direct care services, education and prevention information, community-based research, housing and legal advocacy to people affected by AIDS.

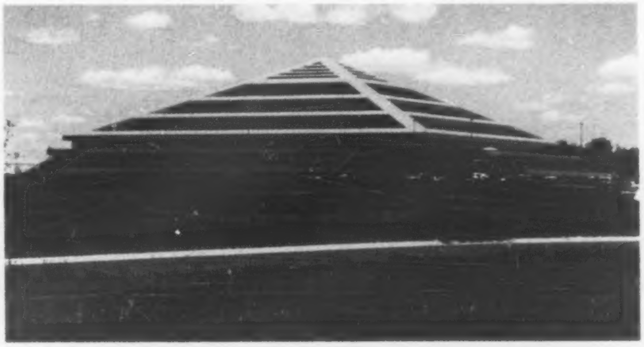
Grant recipients are the Bering Foundation in Houston ($20,400); PWA Coalition of Dallas ($21,500); Community Research Initiative ($50,000); Lambda Legal Defense and Education Fund ($15,000); U.S. Conforence of Mayors ($35,000); National Association of People With AIDS ($40,000); PWA Coalition/New York ($25,000); AIDS Resource Center ($15,000); Stop AIDS Project/San Francisco ($15,000); Project Open Hand ($15,000); Living With AIDS Fund ($25,000); Fund for Human Dignity ($20,000); Project Inform ($20,000); God's Love We Deliver ($25,000); and also God's Love We Deliver, Montefiore Hospital, Village Nursing Home, St. Peter's AIDS Momentum Outreach, Northern Lights, Body Positive and Manhattan Plaza AIDS Project (holiday gifts of $5,000 each).

For more information about DIFFA and its grant awards, contact Russell Radley at the organization, 212/727-3100. ☐

DEBUT

Steelcase completing new center in Grand Rapids suburb

Steelcase, the furniture manufacturing giant, is about to have a pyramid of its own. The company is in the final stages of completing its corporate development center, billed as the industry's "most comprehensive research and development center." The 575,000-sq.-ft. building, housing 10 testing laboratories and 750 employees, opens in suburban Grand Rapids later this month.



According to Steelcase chairman Robert C. Pew, the $111 million center was designed to enhance the product development process and "spark the company's expected growth." The seven-story, pyramid-shaped building, designed by The WBDC Group of Grand Rapids, "will encourage both the planned and spontaneous interaction of people and ideas to enhance the product development process. Research has to be nurtured in a creative environment." Three organizational/environmental psychologists specializing in architectural design participated in the center's design process. These included professors at Cornell University and MIT. Other consultants included an acoustics professor at Penn State University and a "human factors" professor at the University of Wisconsin.

JERRY COOPER

AT NEOCON

Interior Design *sponsors opening event*

Interior Design magazine is a co-sponsor of NEOCON's opening event, a symposium entitled "World Culture: Agenda for the 1990s." Scheduled for Tuesday, June 13th, at 8:30 a.m. in the auditorium of the recently restored Chicago Theatre (featured in our March issue), the program offers a gathering of world cultural leaders discussing "their countries' cultural directions for the 1990s."

CHICAGO
CHICAGO

Charles Kuralt of CBS News will chair the panel, whose members will include Emile Biasini, a deputy minister attached to the Minister of Culture, of Communication, of Major Works and of the Bi-centennial, and also in charge of Major Works for the government of France in Paris; Viacheslav Leonidovich Glazychew, a journalist and vice president of the Union of Architects, USSR, in Moscow; and Adele Chatfield-Taylor, president of the American Academy in Rome, based in the New York office.

And, of course, we're also co-sponsoring, with the IBD, the annual Midnight Affair reception. The black-tie event, at Chicago's historic Navy Pier, begins at 9 p.m. Tuesday evening. For Midnight Affair ticket information, contact the IBD's national office at 312/467-1950. ☐

BRIEFLY

HEADLINES

New Mexico *has become the seventh U.S. jurisdiction to approve designer licensing. House Bill 353, restricting the use of the title "interior designer" to individuals who have met specific requirements of education, examination and professional experience, was signed into law by Gov. Garrey Carruthers on March 15th.*

BUSINESS

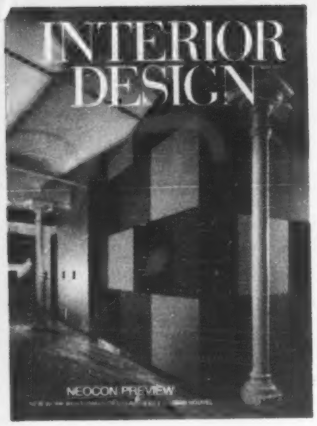
Knoll International *has announced its acquisition of Spinneybeck, the well-known North American leather resource. Knoll is purchasing the U.S. and Canadian operations of Spinneybeck and maintaining the company as a separate division headed by Philip Manchee, Spinneybeck president. Manchee will work with Arthur Sager, Knoll's senior vice president and managing director of textiles and leather. "Knoll International will benefit immeasurably from the addition of Spinneybeck's high-quality leathers to complement the Knoll textile line," said Knoll chairman Marshall S. Cogan. In a related move, Knoll has named Hazel Siegel, long-time director of design for DesignTex Fabrics, to the post of managing director of design, worldwide, for Knoll Textiles.*

ORGANIZATIONS

Joy Dohr, Authur Hawn and Ron Veitch *have been named Fellows of the Interior Design Educators Council (IDEC). The induction took place at the organization's recent annual conference at Miami University in Cincinnati. The three were named "in recognition of their outstanding contributions to the profession." Patrick Flanagan received the Merit Award and Emeritus status was granted to Mildred Lamm, Mary Jo Weale and Jean Klopfer. Newly elected IDEC officers are Shirley Singer, Louisiana State University, president; Paul Eshelman, Cornell University, vice president; Bob Parsons, Virginia Tech Institute, corresponding secretary; and Virginia Weinhold, Ohio State University, treasurer.*

The ASID *board of directors, during March meetings in Houston, adopted a statement regarding interior design philosophy. The position, recommended by the ASID Position Paper Committee, is intended to "provide an intellectual foundation for the interior design profession" and aims to promote greater public understanding of the role and responsibility of interior*

Continued

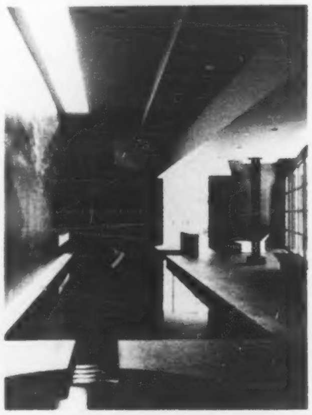


News

WINNERS

AIA announces 1989 Honor Award winners

The American Institute of Architects (AIA) has designated 12 buildings for its 1989 Honor Awards. The winners were: Martha's Vineyard Residence, Massachusetts, by Steven Holl Architects of New York (shown here, left); Reid House, Johns Island, South Carolina, by Clark & Menefee Architects, Charleston; Central Housing Office Building at the University of California, Irvine, by Eric Owen Moss, Architect, Culver City, California; Seneca Lake Pier and Pavilion, Watkins Glen, New York, by Chad Floyd, AIA, of the Centerbrook firm in Essex, Connecticut; Desert View Elementary School in Sunland Park, New Mexico, by Perkins & Will of Chicago; Kings Point Pool Addition, Long Island, New York, by Tod Williams Billie Tsien & Associates, New York (shown here, right); Delaware Aqueduct restoration, connecting New York and Pennsylvania, by Beyer Blinder Belle, New York; Miller Park Plaza in Chattanooga, Tennessee, by Derthick, Henley & Wilkerson/Koetter, Kim & Associates, Boston; Folger Shakespeare Library in Washington, DC by Hartman-Cox Architects, Washington; Headquarters Library of the Clayton County Library System, Jonesboro, Georgia, by Scogin Elam and Bray Architects of Atlanta; Hansen House in Wilmette, Illinois, by Hammond Beeby and Babka of Chicago; and the Meyer May House Museum in Grand Rapids, by Tilton + Lewis Associates, Chicago (featured in our November, 1987, issue. ☐



BRIEFLY *Continued*

designers in society. The statement is as follows: "Interior design is dedicated to advancing the quality of life through meaningful inhabitation."

CONFERENCES

Andrea Loukin, Interior Design's *Market editor, will be among panelists at the 30th annual International Furnishings and Design Association (IFDA) Conference, scheduled for May 18th through 21st at Loews Anatole Hotel in Dallas. This year's conference theme is "International Forum: Design Passport." For further information, contact IFDA, 107 World Trade Center, P.O. Box 58045, Dallas, TX 75258, (214) 747-2406.*

The 39th annual *International Design Conference in Aspen, titled "The Italian Manifesto: The Culture of Nine Hundred and Ninety Nine Cities," will be held from June 13th to 18th and will explore "the origins and dynamics of Italian design" during six days of exhibits, workshops, discussions, demonstrations and performances. For information on registration, write or call IDCA, P.O. Box 664, Aspen, CO 81612, (303) 925-2257.*

"Assessing Wright's Legacy, *The Reality and Myth of Frank Lloyd Wright" is the title for the fourth annual Domino's Pizza Frank Lloyd Wright Symposium, to be held in Ann Arbor, Michigan, July 26th through 30th. The conference will be hosted by the National Center for the Study of Frank Lloyd Wright at Domino's Farms in conjunction with the College of Architecture and Urban Planning at the University of Michigan. For more information, contact the University of Michigan's Extension Service, Conferences and Institutes, 200 Hill Street, Ann Arbor, MI 48104-3297, (313) 764-5305.*

We sincerely regret that, because information went astray, there were some omissions from the Top 100 Interior Design Giants of 1989, published in our January issue. Two of last year's Giants, Jung/Brannen Associates, Inc. and Staffelbach Designs & Associates, Inc., both firms specializing in office design, were not included in our final ranking. The following bar shows how these firms should have been ranked for 1989. All information that appears in the usual listings is given, with the exception of information about staff. ☐

RANK Jan. '89 (Jan. '88)	FIRM NAME HEADQUARTERS & BRANCH OFFICES	INTERIOR DESIGN FEE IN MILLIONS	TOTAL FIRM FEES IN MILLIONS	DOLLAR VOLUME IN MILLIONS	TOTAL SQ. FT. IN MILLIONS	1988 INSTALLATIONS	1989 INSTALLATIONS
26 (29)	**Jung/Brannen Associates, Inc.** **Boston** New York; Hartford, CT; Istanbul, Turkey	7.12	15.3	120.6	3.45	Massachusetts Financial Services, Boston Marsh & McLennan, Inc., Boston Aetna Life & Casualty Pkg., Hartford, CT Massachusetts Gen'l Hosp. Lab, Charlestown, MA DiCara, Selig, Sawyer & Holt, Boston	Citicorp, NYSU, Queens, NY Thomas H. Lee Company, Boston Aetna Life & Casualty Bid Packs, Hartford, CT Aetna Life & Casualty, Boston Springfield Institute for Savings, Springfield, MA
46 (53)	**Staffelbach Designs & Associates, Inc.** **Dallas** Kansas City, MO	4.04	4.49	40.5	1.35	Mobil Oil Corporation, Dallas Fulbright & Jaworski law offices, Dallas The Thompson Companies, Dallas Gifford Hill, Inc., Dallas Prentiss Properties Inc., HQ, Dallas	Borell Jacobs, Dallas Vornado, Inc., Paramus, NJ Yellow Freight Systems, Inc., Kansas City, MO AT&T, Kansas City, MO IBM, Fort Worth, TX

Professional Builder®

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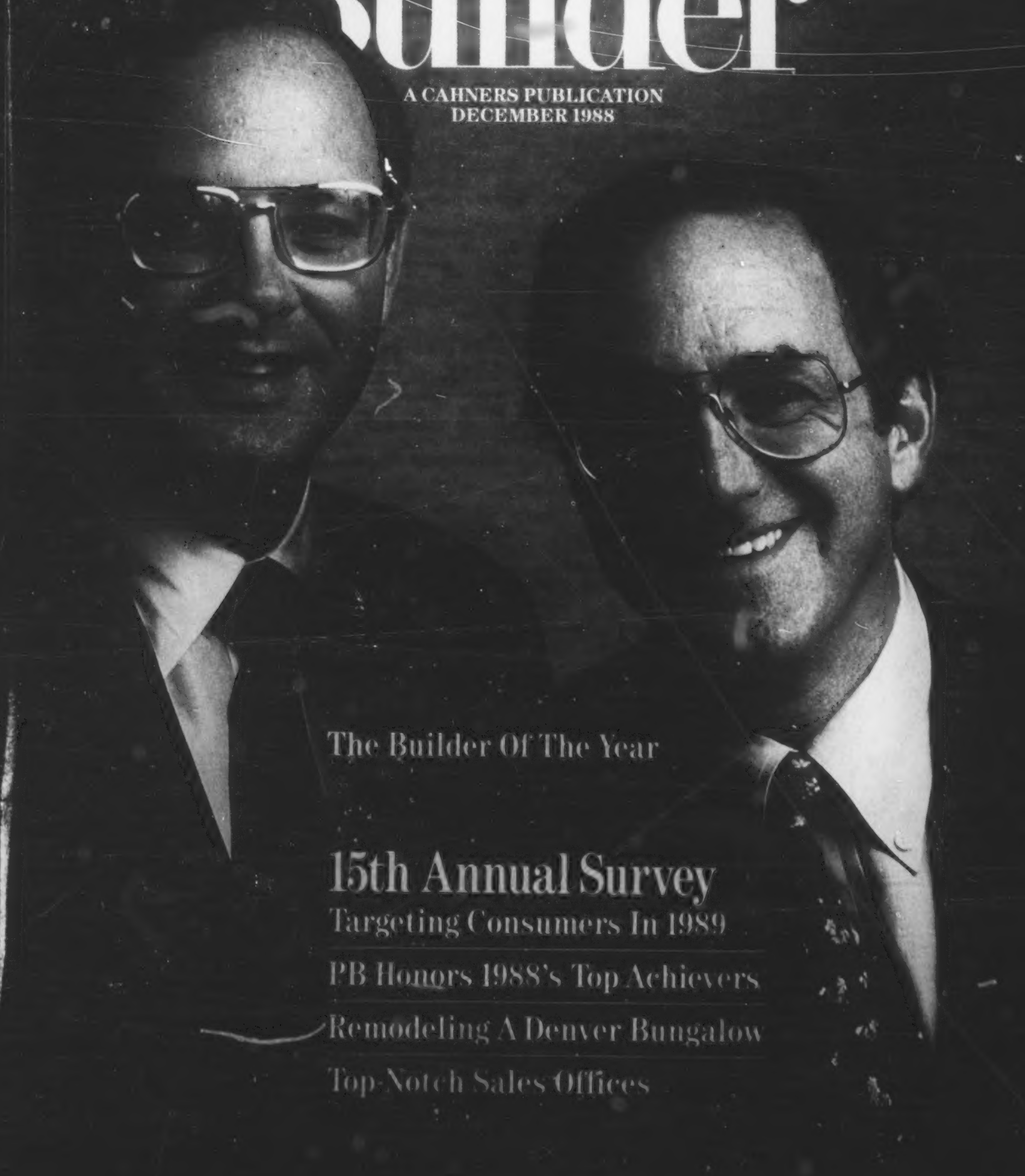
DECEMBER 1988



The Builder Of The Year

15th Annual Survey

Targeting Consumers In 1989

PB Honors 1988's Top Achievers

Remodeling A Denver Bungalow

Top-Notch Sales Offices

Professional Builder

DECEMBER • 1988 VOL. 53

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

The Toll brothers are the Builder Of The Year. They continued their East Coast expansion while racking up record revenues and profits. Page 114.

These past 12 months were a year of accomplishments. *Professional Builder*'s Achievement Awards honor 10 individuals for a job done well. Page 122.

Glazecraft

Our 15th annual Consumer Survey describes what shoppers are looking for in their next home. Complete results, beginning on page 132.

FEATURES

The Builder Of The Year 114

Robert and Bruce Toll directed their East Coast building company to record revenues and profits in 1988. Quite a feat, considering that Toll Brothers Inc. opened 15 new communities. That usually means high start-up costs.

The brothers Toll keep track of every last nickel they spend to build a house. When it comes time for review, a sophisticated management information system produces the reports the brothers need for evaluation.

Toll Brothers Inc. is a case study in how to manage for growth and profitability.

Achievement Awards 122

Professional Builder honors 10 individuals who made a difference in 1988. These men are honored for: pushing housing onto the national political agenda, sheltering low-income families, fighting growth controls, improving housing design, showing leadership, creating sophisticated marketing campaigns, building quality housing and bringing professionalism to the remodeling industry.

Smarter Housing For The Money 150

L.J. Hooker Homes of Orlando, Fla., has a formula for selling affordable housing. If the house evokes certain reactions from shoppers, the builder considers it a success. Hooker Homes sold more than 80 houses priced from less than $100,000.

Remodeling Project Of The Month 153

A room addition brought light and space to a two-story house on Boston's north shore. Builder/remodeler Larry Tobine added 455 square feet to the 1350-square-foot house.

On The Cover

Marc Berlow photographed the Toll brothers, the Builder Of The Year, at their headquarters near Philadelphia.

Professional Builder

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

High technology takes over the sales center. Page 41.

Ohio builder Phil Fankhauser is testing his idea for designing, building and franchising multifamily housing for retirees. Page 24. **Readers of this magazine** accounted for 92 percent of all housing starts in 1987, a survey finds. Page 38. **Who started the most** housing in 1988? asks a PB survey. Page 38. **Apartment design in Denver** looks like for-sale housing. And that helped the lease-up. Page 52. **State-of-the-art** comforts are seen in Florida's New Southern Home. Page 68. **Researchers** at GE Plastics are devising new applications for its materials. A prototype house is under construction. Page 89.

Front doors, interior doors and garage doors. Page 158.

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REPRINTS of articles are available in quantities of 500 or more. For a specific quotation, contact Katie Pyziak, Manager, Marketing Services, 1350 E. Touhy Ave., Des Plaines, IL 60017-5080; phone, 312/635-8800.

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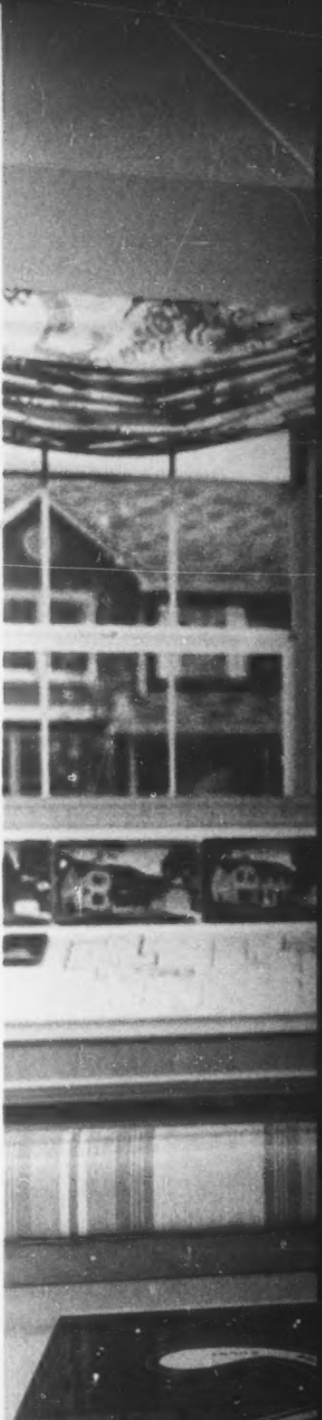
Professional Builder's
15th Annual Consumer Survey

WHAT 1989 BUYERS WANT IN HOUSING



Turning home shoppers into satisfied homeowners is an exact science and a fine art. It takes market research, careful technique and the knack to put it all together. Why has home building become so sophisticated? Because builders construct more than shelter, they build dreams. A home today does not just reflect a lifestyle, it is a lifestyle.

To equip builders with the most up-to-date market information available, *Professional Builder* has updated and conducted a consumer survey on an annual basis, now in its 15th year. A nationally representative sample of households was surveyed by National Family Opinion Inc., an independent research firm. The survey is based on 1072 replies. Builders also were questioned about their construction and marketing practices by the Bureau of Building Marketing Research, encompassing 319 replies.

Surveys include break-outs by region, home price, family size, household composition, buyer age, income and market segments.

Complete copies of both consumer and builder surveys are available for $320 each. Both surveys are available for $450 if purchased together. Send check or money order to *Professional Builder*, P. O. Box 5080, Des Plaines, Ill., 60017-5080.

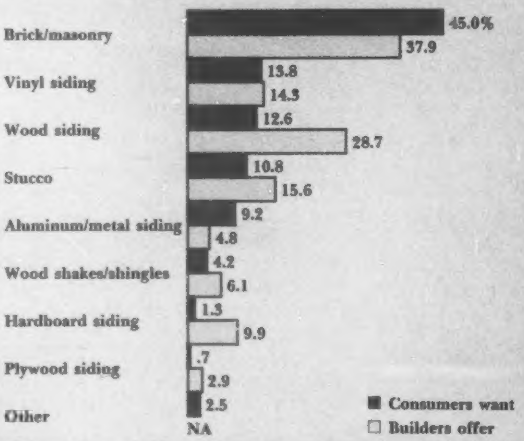
Written by Contributing Editor Karen Wells

GIVE THEM A ONE-STORY HOUSE WITH A TWO-CAR GARAGE

It is design that brings buyers into models; it is design that sells them. Survey results show consumer wants. The right combination adds it all up on the bottom line.

Brick Ranks As Favorite Exterior Finish

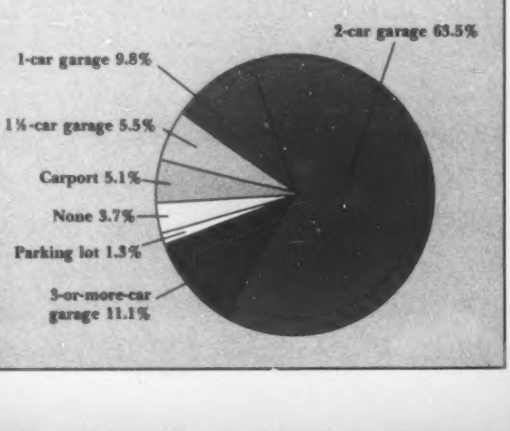
Overall, brick/masonry is preferred by consumers and appears on 37.9% of builders' best-selling models. Regionally, brick is favored by consumers in all geographic areas except the East and West Coasts. In the East, wood siding and wood shakes and shingles are preferred and in the Pacific region, stucco is the top exterior finish.



2-Car Garage Gives Buyers The Space They Need

Almost 64% of consumers prefer a 2-car garage in new homes; 63.4% of best-selling models include 2-car garages. Leading up to that garage, 58.1% of consumers prefer a concrete driveway and 25.8% want asphalt. Builders include 55.5% concrete and 31.6% asphalt driveways.

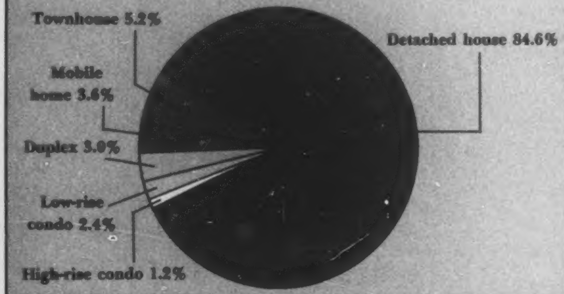
Garage facilities consumers prefer



Detached Homes Are Still The Runaway Favorite

Among all consumers surveyed, a detached house on its own lot is still preferred. Buyers of attached homes want a townhouse with 3 or more units per building.

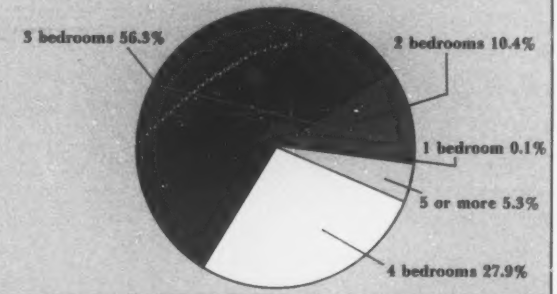
Home type consumers prefer



Buyers Of Detached Housing Want 3 Bedrooms

Three-bedroom homes are favored by all buyer types and in most geographic regions. Among builders' best-selling models, 47.3% have 3 bedrooms.

Number of bedrooms detached buyers prefer



Single Level Is Preferred Overall; 2-Story For Buyers Of Attached

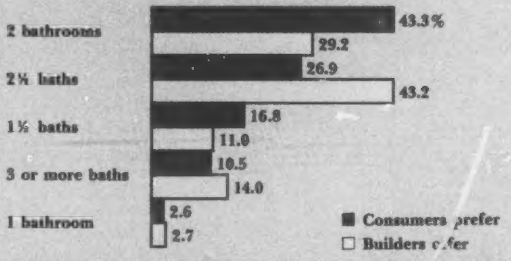
The largest percentage of detached buyers want a single-level home. They are preferred by all buyer types except move-up buyers who like 2-story homes. Almost 50% of attached buyers want units with 2-stories or more; 50% of best-selling models are 2-story homes.

Number of levels in new home	Preference detached buyers	Preference attached buyers	Builders' best-selling models
Single level	44.4%	26.3%	32.1%
2-story or more	28.1	48.8	50.3
Split-level	18.7	22.5	6.2
1½ story	8.9	2.5	11.4

2 Bathrooms Are Favored Among Buyers

Among all consumers, 43.3% want 2 bathrooms in the new homes they buy. Almost the same percentage of best-selling models have 2½ baths. More than 50% of buyers of homes less than $99,000 want 2 bathrooms; 3 bathrooms are preferred as the home price range increases.

Number of bathrooms



Traditional Styling Continues As Top Preference

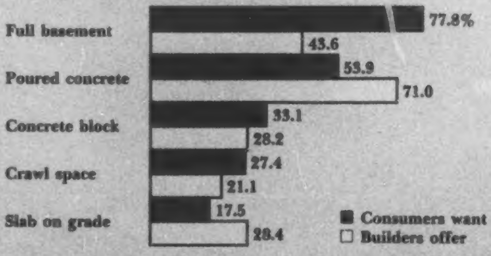
Traditional architectural styling is preferred by all buyer types. For homes priced less than $85,000, 42.9% of consumers preferred traditional; 30% of consumers in New England preferred colonial styling.

Architectural style	Consumers prefer	Builders' best-selling models
Traditional	35.5%	[illegible]
Contemporary	28.7	[illegible]
Colonial	16.1	[illegible]
Spanish	4.6	1.7
Victorian	4.5	3.7
Tudor	3.9	2.5
Other	6.7	4.1

Full Basement Satisfies Most Buyers

More than 75% of consumers prefer a full basement in the new homes they buy. About 50% of buyers want a poured concrete foundation.

Foundation options



Note: Consumers rated these options on a scale of 1 to 5, from least desirable to most desirable. Shown is a composite of ratings 4 and 5, those consumers who rated these options as more desirable on the scale.

Their Shopping Lists Include Fireplaces, Multipurpose Rooms And A Short Commute

Size of House Varies By Home Price Range

The median size of a new home preferred by consumers is 1808 square feet. The median size of builders' best-selling models is 2396 square feet. Best-selling detached models range in size from a median of 2323 square feet for a house priced between $65,000 and $85,000 to 4126 square feet for houses priced in excess of $500,000.

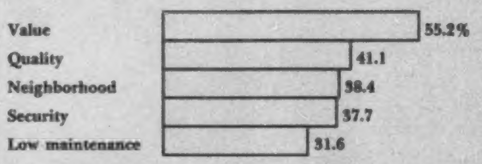
Median size of new home sought by consumers

Home price range	Consumers prefer
Less than $85,000	1448 sq.ft.
$85,000 to $99,000	1775
$100,000 to $149,000	2095
$150,000 to $199,000	2103
$200,000 to $300,000	2400
More than $300,000	3052

Perceived Value Plays A Key Role In The Buying Decision

Among 5 different house attributes, more than 50% of all consumers rated value as more important, expressing its significance in the buying decision.

House attribute



Note: Consumers rated these attributes on a scale of 1 to 5, from least desirable to most desirable. Shown is a composite of ratings 4 and 5, those consumers who rated these attributes as more important on the scale.

When It Comes To Credibility, Consumers Won't Take Builder's Word For It

In determining the credibility of claimed construction quality and energy-saving features, consumers depend on their own inspection as well as guarantees and warranties. They also seek out builders' former customers for advice. Most builders offer guarantees and supply information through salesmen and literature.

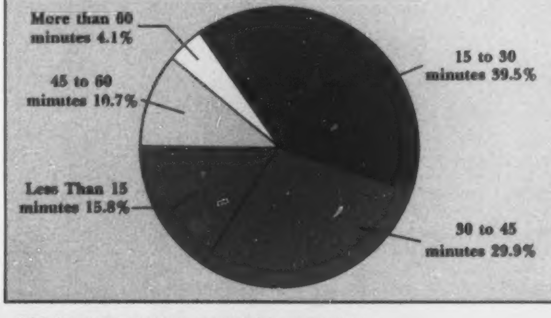
How consumers determine builder credibility	Quality	Energy
By visual inspection	79.0%	60.4%
Ask for guarantees/warranties	63.8	66.2
Ask others who bought from builder	59.2	39.9
By comparison with other homes	57.2	38.0
Get independent evaluation	49.1	37.8
Ask for literature	31.5	49.1
Look for brand names	29.3	43.3
Take builder's word for it	15.5	14.3
Not concerned about it	2.1	3.8

How builders market features	Quality	Energy
Written guarantees/warranties	64.4%	38.0%
Part of salesmen's presentation	64.4	58.4
Literature or brochures	57.7	54.2
Supplier promotion material/literature	39.2	47.6
Sales-center displays	29.7	23.5
Independent evaluation/testimonial	27.0	21.1
Signage or model-home stickers	27.0	23.5
Cut-away exhibits	10.8	12.1

Half Of Buyers Want Less Than A 1/2-Hour Commute

An important consideration in the preferred location of a new home is the commute to work. Almost 40% of consumers prefer a 15-to-30 minute commute.

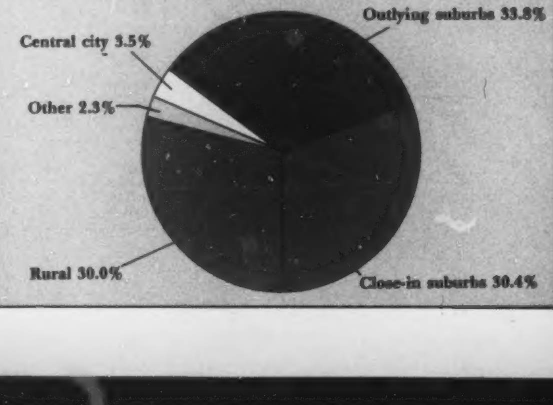
Maximum commute consumers want



Suburban And Rural Living Are Most Desired

Preferred location is divided between outlying suburbs, close-in suburbs and rural areas. The greater the home price, the less buyers cared for a rural environment.

Environment consumers prefer



New Models Designate More Space For Owner's Comfort

Builders reported how room size has changed over the past few years. Emphasis is on enlarging the master bath and the master suite. Formal living spaces are losing the space race.

How the size of builders' best-selling model has changed	Increasing	Decreasing	Staying the same
Master bath	71.3%	2.6%	26.2%
Master suite	64.4	4.8	30.9
Kitchen	54.6	8.2	37.2
Total house	41.3	16.5	42.2
Family room	36.4	13.4	50.2
Dining room	17.6	26.4	56.0
Formal living room	14.4	42.6	43.1

Detached Homes Show Off The Acreage; Attached Units Offer Yards

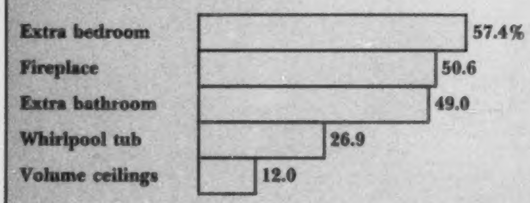
More than 50% of best-selling detached homes have a ½-acre or larger lot. Attached homes offer private courts and common open space. Lots for detached models average 19,426 square feet with a front elevation averaging 45.3 feet wide.

Size of lot included with best-selling home	Detached homes	Attached homes
1/2 acre or more	55.1%	7.7%
Narrow frontage/deep rear yard	34.2	6.2
Minimum yard with private court	11.4	46.2
No private yard/ common open space	4.4	43.1
Narrow frontage/ deep front yard	5.7	1.5

Consumers Choose More Space And Fireplace As Extras

When asked which 2 extra features they would choose for their new home if they could only choose 2, consumers preferred an extra bedroom and fireplace. An extra bath ran a close third.

Extra features consumers prefer



Enlarge Family Areas And Storage, Buyers Say

When asked where they would add extra square footage if they could design their new home, consumers' top 3 choices were the family room, meal preparation area and storage in the master suite.

Areas consumers would enlarge	
Family room	45.5%
Living room	25.5
Dining room	13.6
Bonus room	12.2
Kitchen:	
Meal preparation area	48.0
Eating area	30.1
Master suite:	
Closet	34.7
Bathing	22.8
Sleeping	13.3
Sitting	9.6
Office/hobby room	21.6
Secondary bedrooms	14.8
Secondary bathrooms	7.5

Builders Emphasize Inner Space

Special design and marketing techniques are needed when the square footage and lot size has decreased; 74% of builders said they are improving interior space planning to maximize square footage.

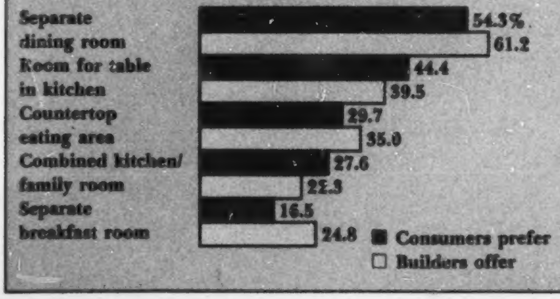
Special design/marketing techniques used for smaller houses or lots	
Improved interior space planning	74.3%
Additional or upgraded standard features	45.7
Improved exterior land planning	40.7
Improved interior decorating to show how space "lives"	35.0
More amenities	35.0
Additional or upgraded energy features	27.9
Other	5.7

Space Is The Buzz Word. Give Them Rooms For Solitude, Rooms For Entertaining

Buyers Want Space For Family Dining And Entertaining

More than 50% of consumers want a separate dining room in their new homes. Even 50% of buyers of attached housing want a separate dining room.

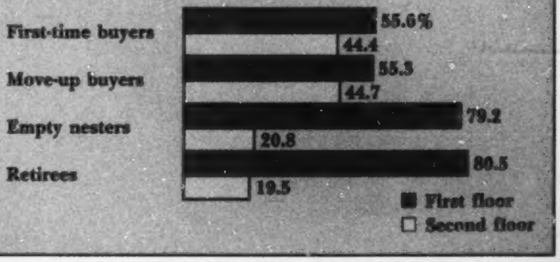
Eating arrangements



Locate The Master Suite On The First Floor

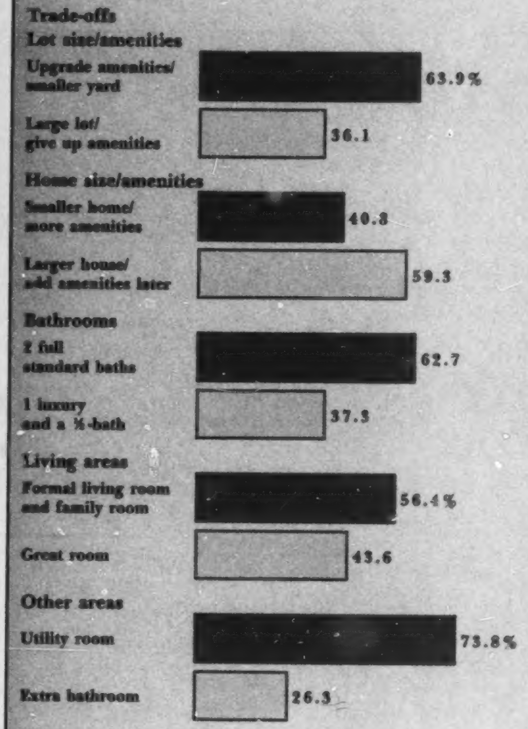
Most consumers want the master suite on the first floor of their new home—particularly older buyers. The greater the price, however, the more buyers prefer a second-floor master suite.

Location of master bedroom



Trade-Offs: Buyers Spell Out Their Preferences

When you can't have everything, what will you choose? Consumers made their choices between lot size, home size, amenities, bathrooms, living areas, and other areas.



When It Comes To Design, Make It Appealing And Live Large

The top 3 design elements that consumers consider most desirable revolve around the need for storage. Other survey results showed that only 49% of builders offer extra garage storage space as a standard feature; only 63.8% offer a patio; 51.3% offer a porch; 50.3% offer a covered entry; 12.8% offer built-in furniture.

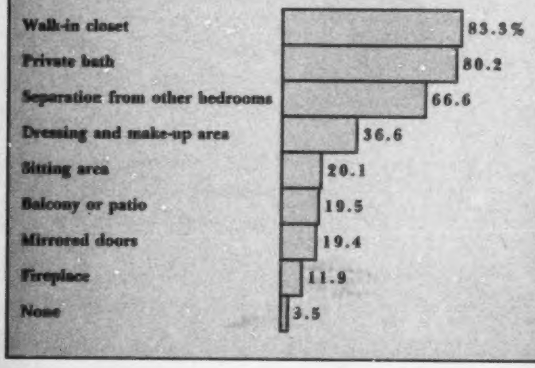
Design elements	Most desirable
Linen closet	87.2%
Garage storage space	80.1
Pantry	79.3
Patio	75.4
2 closets in master suite	73.6
Space for family entertainment	73.1
Porch	71.1
Covered entries	66.9
Multi-purpose rooms	62.5
Oversized master bath	52.6
Part-time home office/hobby room	42.6
Built-in furniture	42.4
Cathedral/vaulted-type ceilings	41.9
Formal entertaining space	38.0
Home entertainment center	37.4
Raised flat ceilings in living area	37.3
Sunroom or greenhouse type room	34.5
Space for full-time office	30.7
Garden bathroom	24.1
Dramatic window treatments	24.0
Interior plant shelves/wall niches	22.6
Interior lofts/balconies	21.0

Note: Consumers rate these elements on a scale of 1 to 5, from least desirable to most desirable. Shown here is a composite of ratings 4 and 5, those consumers who rated these elements as more desirable on the scale.

Storage And Privacy Make Master Suite Special

More than 80% of all consumers prefer a walk-in closet and a private bath as part of the master suite; 66% want the master suite separated from other bedrooms.

Most important master bedroom elements



Almost 60% Of Buyers Would Consider Attached

In last year's consumer survey, 51.9% of consumers said that they would not consider attached under any circumstances. This year, almost 60% would. Other survey results showed that 31.8% of builders said attached housing has increased when compared with their total residential construction activity. More than 40% of attached units have a density of less than 4 units per acre.

Features that would make attached housing acceptable	Detached buyers	Attached buyers
Wouldn't consider attached	41.9%	3.1%
Privacy at rear of unit	35.2	37.5
Energy-saving features	23.1	43.8
Sound control to exclude noise	22.3	40.6
Offered a sense of neighborhood	21.4	37.5
Recreational facilities	15.9	31.3
Situated in a planned community	14.7	28.1
Price included maintenance	14.5	37.5
Common open space	13.1	21.9
Proven security system	11.5	15.6

TELL THEM IT IS A GOOD INVESTMENT

The buying decision hinges on a delicately balanced relationship between buyer, builder and lender. Here, consumers talk about what motivates them to buy.

Changing Needs Produce Need To Change

Among all consumers, most are motivated to move as a result of a house that is too small; 60% of first-time and move-up buyers are dissatisfied with a current house that is too small. Empty nesters and retirees want a different house because their current home requires too much maintenance.

Dislike about present home	
Too small	43.7%
Job/family needs have changed	29.2
Location	28.1
Too much maintenance	19.4
Neighbors	14.9
Old fashioned kitchen	12.1
Old fashioned bathrooms	10.5
Too large	9.2
No excitement	6.4
Schools	6.0

Affordability, Size And Investment Value Determine Which House To Buy

Buyers say the affordability, size of house (number of rooms), and the investment value are the 3 most important factors when selecting a home. These 3 factors are consistent throughout all 4 buyer types surveyed.

Important factors when selecting a home	
Price/affordability	66.3%
Size (number of rooms)	44.7
Good investment/appreciating value	39.4
Style and appearance	31.3
Quality of schools	26.9
Size of yard/lot	24.8
Close to work	21.3
Builder reputation	20.0
Warranty on house and equipment	12.4
Located in prestigious neighborhood	8.8
Close to shopping	8.6
Known brand names used throughout	7.2
Close to public transportation	5.2

Desire For Security And Privacy Influence Buying Decision

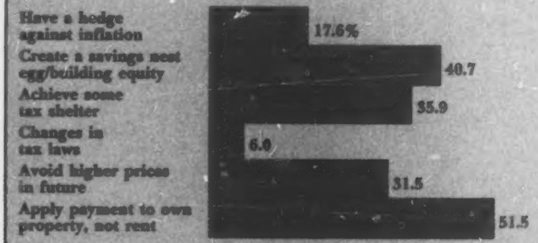
Security and privacy is the most popular lifestyle factor in the buying decision among all 4 buyer types. The sheer prestige of home ownership is not reason enough to buy a home, consumers indicate.

Lifestyle factors that influenced buying decision	First timers	Move ups	Empty nesters	Retirees
Provides security/privacy	61.2%	60.1%	63.9%	75.4%
Establishes roots in community	20.3	16.4	12.4	12.3
Sheer prestige of owning a home	17.5	8.5	5.2	5.7
Essential to raising a family	37.4	45.1	12.4	9.8
Conforms best to my lifestyle	29.7	52.5	57.7	60.7
Avoids dealing with a landlord	23.4	7.7	27.8	16.4

Buying A Home Makes Best Financial Sense

More than 50% of consumers would rather apply a payment to something they own than "throw away" money on rent. And among first-time buyers, 72.3% are motivated to buy a home for this very reason.

Financial factors that influenced buying decision



Less Maintenance Attracts Buyers To Attached Homes

Less home maintenance is the main reason a consumer would choose an attached home or condominium; 70% of all empty nesters and retirees say less home maintenance would be an attractive feature.

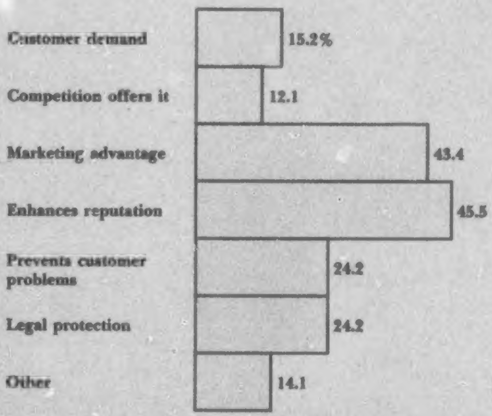
Reason for choosing attached home or condo	Attached buyers
Less home maintenance	73.6%
Recreational facilities	37.2
Only housing available at location	15.7
Best way to buy first home	25.6
Offers sense of neighborhood	27.3
More house for the money	21.5
Only type of housing I can afford	21.5
Increased prestige	5.0
I prefer the cluster lifestyle	8.3

Insured Warranty Is Significant To Most Buyers

An insured warranty is very important to all buyer types, but only 39.2% of builders surveyed said they offered an insured warranty. Survey results also show that 56.9% of attached-housing buyers would not consider buying a home without an insured warranty. Overall, only slightly more than 50% of all consumers would consider buying without such a warranty.

Importance of insured warranty in buying decision	First-time buyers	Move-up buyers	Empty nesters	Retirees
Very important	56.1%	46.2%	51.6%	59.1%
Somewhat important	36.5	41.0	42.3	32.2
Not important	7.4	12.8	6.2	8.7

Why builders offer an insured warranty



Other Survey Highlights On Buyer Motivation:

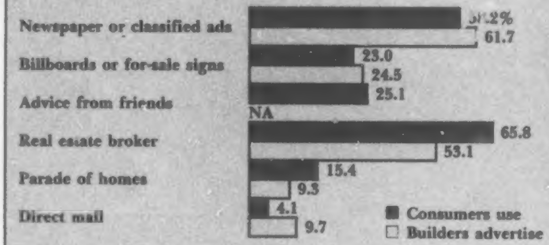
- More than 28% of consumers were purchasing a home for the first time and almost 20% were moving up a second or third time to gain more space.
- Buyers have previously owned an average of 1.6 houses; 50% have bought 1 new home and 55.7% have purchased an existing home.
- Consumers have owned their present home for an average of 7.6 years, paid an average of $73,130 for it and expect to sell it for an average of $131,300.
- Size and location make a new home a must. 33% of responding consumers need more space; 20% want a better location.

Consumers Scored Model Homes Fairly High; Sales Staffs Didn't Do So Well

Consumers Depend On Brokers, Ads For Information

While searching for a new home, consumers rely primarily on real estate brokers and newspaper or classified ads as their sources of information. A significant 25.1% of all buyers and 34.4% of attached buyers seek the advice of friends in their search for a new home.

Most important sources in search for new home



Buyers Want The Basics In Real Estate Ads

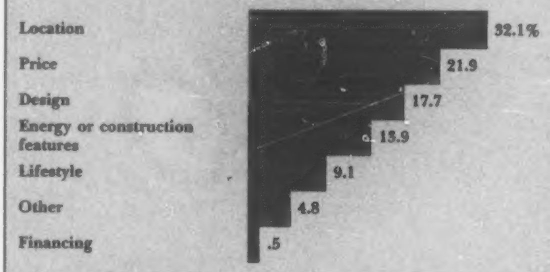
Forget the fancy drawings, elaborate copy and color. Buyers want the facts when it comes to real estate advertisements. Tell them how much, what to expect, and how to get there.

Important elements of a real estate advertisement	
Price of house	96.7%
Floor plan	87.7
Photo of house	84.1
Description of model	75.7
Map with directions to house	54.3
Drawing of house	25.9
Color advertisement	24.7
A lot of copy	14.0
Minimum copy	7.5
Black-and-white advertisement	6.8

Builders Focus On Location And Price In Ads

Location is the key element of real estate success. And 32% of builders report that location is the primary focus of their new home advertising efforts. In attached housing, 41.1% of builders emphasize location in ads.

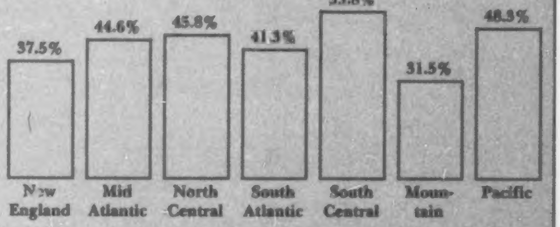
Primary focus of home advertising efforts



Furnished Models Affect The Buying Decision

A significant percentage of buyers across the nation say interior furnishings and decorating provided by the builder play an important part in the buying decision. Almost 80% of builders say they furnish their model homes for a cost averaging $22,840 per model.

Yes, furnished and decorated models are important to buying decision.



Location And Quality Spell Success For Most Builders

More than 60% of builders attribute the success of their residential projects to an emphasis on location and quality. The success of attached housing was attributed to location by 75% of responding builders. In the Mid-Atlantic and Pacific regions, more than 75% pointed to location for success.

Success of residential projects	All builders
Location	61.3%
Overall quality	60.2
Design	55.2
Price	41.8
Features	23.4
Size of home	14.6
Energy	13.8
Marketing techniques	8.8
Financing	6.1
Products	2.7

How Well Does Your Sales Force Rate?

According to consumers, salespeople they encounter in model homes get poor grades. Most salespeople make consumers feel welcome, but fall short in presenting the advantages, hidden values and differences.

How many salespeople fit this description?	Consumer rating		
	Most	Some	Few
Present basic advantages of home and community	41.5%	43.5%	15.0%
Point out hidden values	36.9	41.8	21.3
Treat me like a person	33.0	45.8	21.2
Too pushy	25.0	36.4	38.6
Point out differences without demeaning competition	20.2	45.8	34.0
Not interested in the customer	15.3	44.9	39.7
Not knowledgeable about house	12.2	43.7	44.1
Don't make me feel welcome	7.6	35.0	57.4

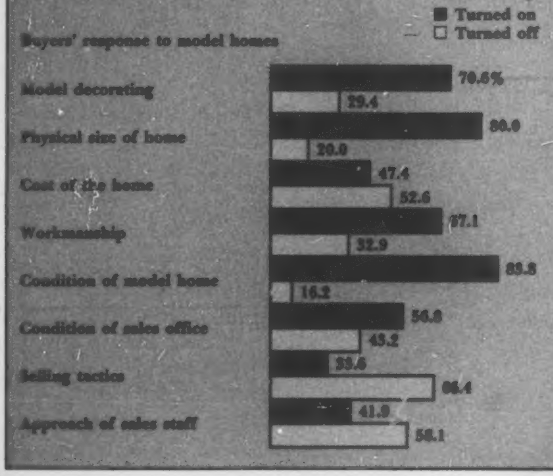
Do Your Models Have The Information Buyers Want?

Information at model-home sales centers is important to the consumer's buying decision. Complete information could mean the difference between a visit and a sale. Surprisingly, less than 75% have floor plans and only 52.8% supply price lists.

Information at model-home sales center	Builders include
Floor plans of houses available	72.8%
Material samples/color selections	59.8
Land plans	55.9
Price lists	52.8
Lists, samples, prices of options	50.8
Financing assistance/data on rates	46.5
Information on homeowner costs	44.9
Standard warranties	44.9
Maps showing community facilities	32.3
Description of project amenities	28.0
Scale models/drawings of exteriors	27.2
Information on home operating costs	25.2
Information on home maintenance	18.9
Displays on energy-saving features	14.6
Future expansion/finishing ideas	10.6
None/do not have model sales center	24.0

Buyers Turned On By Models, Turned Off By Sales Staff

A weak link in a builder's marketing plan can mean lost sales. The chart below helps reveal where those weak (or missing) links may be located. Consumers responded to what turned them on or off in model home merchandising.



Other Survey Highlights On Marketing:

- ✓ Maximize model-home merchandising by showing how extra bedrooms can be used. More than 50% of consumers would use an extra bedroom for a den, library or office; 63.5% would use it as a guest bedroom; 30% would use it for a hobby or sewing room.
- ✓ Overall, 34.7% of consumers say the kitchen is most likely to affect their impression of the house, while 34.5% say an open floor plan would make a significant impression; 7.9% voted for the living room and 6.9% for the master bedroom. Rating less than 5% were the family room (4.7%), the entry (3.8%), volume ceilings (1.9%), and the master bath (1.5%). In New England, the kitchen rated 48.3% in importance. An open floor plan impressed 44.4% of consumers in the West North Central region.
- ✓ Among all consumers who are house shopping, 55.4% have visited a detached model house within the past 6 months. Only 23% of buyers of attached housing have visited an attached model.
- ✓ Almost 25% of model homes are introduced in April, more than any other month. The next highest month was March with 18.5% of models opening.
- ✓ Nationally, 25% of builders' most popular model homes with land sell for $100,000 to $149,000. This was the most active price range among builders of both detached and attached housing.
- ✓ Builders construct an average of 2.1 model homes at each of their sales locations. Builders in the Pacific region used the most (average 3.5 models per location); builders in New England and East North Central used the fewest with an average of only 1 model per sales location.
- ✓ Forty-four percent of builders report they plan their model homes 6 months to 1 year in advance of introduction. And 34.3% of model homes are used from 6 months to 1 year.
- ✓ About 65% of builders of detached homes do not use model homes while 77.3% of builders of attached housing do use model homes.
- ✓ Almost 75% of builders' best-selling model homes are fully landscaped on the outside. Only 3.4% of builders do not provide some type of exterior finishing work. Nationally, 12.5% of models are provided with a lawn only.
- ✓ Sales centers are located inside a model by more than 50% of builders who responded. About 25% of the sales centers are located in the garage of a model. Sales centers are constructed and decorated for an average of $31,078.
- ✓ A price discount on a new home is the promotional activity that will attract 67% of buyers to the model home site. A grand-opening celebration would draw out 22.4% to the sales site and only 12% would come if offered a free gift for attending.
- ✓ Only 21% of builders view first-time buyers as a solid, long-term market for new home builders; 50% of builders view first-timers mainly as a market for existing home sales. Move-up buyers are considered by 46.6% of builders as a market for new home sales; 37% consider move-ups as a market for both new homes and existing homes. Retirees are considered by 44.9% of builders as prospects for new homes; 40.7% of builders are retirees as a market for both new and existing homes.

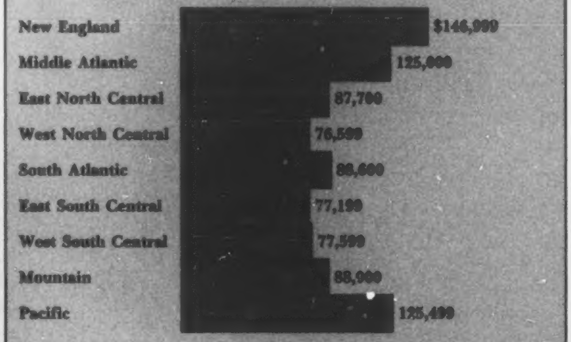
MAKE IT BEAUTIFUL, BUT MAKE IT AFFORDABLE

If they don't have the cash, you won't make the sale. Consumers give their views on housing costs. Builders show how to reduce those costs to keep the American dream alive.

Highest Prices Appear On Both Coasts

While most consumers would consider a median price of $93,849 for a new home, prices range widely from region to region. Contrast the prices consumers seek with the $132,000 median price of builders' best-selling models.

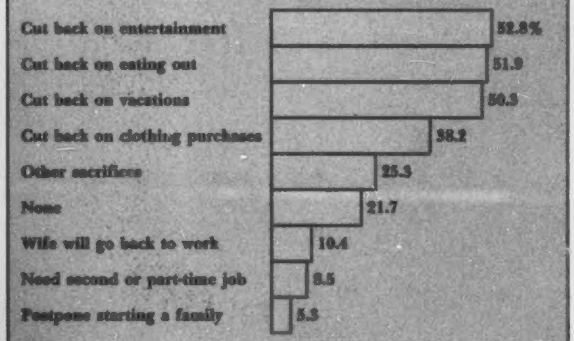
Median price buyers will pay for a new home



Consumers Cut Back On Extras To Afford A New Home

Entertainment, eating out and vacations were cut by about 50% of all buyers in order to save for a new home. Almost 67% of first-time buyers sacrificed these extras.

Initial sacrifices made to afford a new home



Decreased Rates And Payments Say 'Buy Now'

Decreased mortgage interest rates and affordable monthly payments were the 2 reasons most likely to encourage consumers to buy a home now. Among market segments, 70% of move-up buyers were prodded by mortgage rates and 73% of first-time buyers were motivated by affordable monthly payments.

Reasons for buying a home now	Consumers
Decrease in mortgage interest rates	59.2%
Finding affordable monthly payments	58.4
Receive an inheritance	32.3
Less expensive housing became available	30.5
Iron-clad guarantee on quality	21.9
Tax reform	21.2
Drastic change in lifestyle	18.9

American Dream Makes Homeownership A High Priority

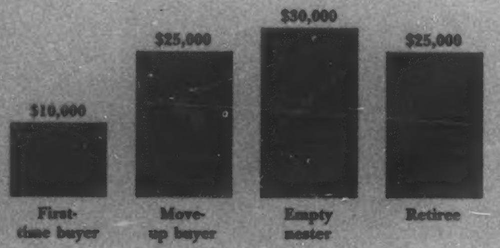
The primary reason for buying a home is to quit paying rent, say more than 80% of buyers. The greater the price, the more buyers want to own for investment, equity and tax reasons.

Reasons to buy rather than rent	Consumers
Want to own home, not pay rent	83.9%
Own property as investment/build equity	76.1
Own for tax reasons	61.6
Concerned about house prices going up	38.5
Settle down and have roots	36.9
Don't want to be dependent on landlord	36.1
Found attractive residence for sale	26.2
Found affordable mortgage plan	18.4
Worried about rents going up	11.9

Buyer Type Influences Down Payment

Overall, buyers could pay an average downpayment of $34,199 (median $20,000). But the amount differs greatly by market segment, as shown. More than 40% of first-time buyers could pay less than $10,000.

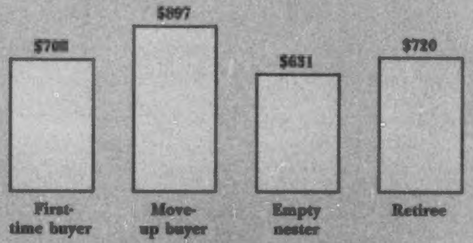
Median down payment



Affordability Per Month Is The Name Of The Game

The average monthly payment buyers can afford ranges from $631 for empty nesters to $897 for move-up buyers. Among all consumers, the average is $785 (median $677). One-paycheck families can afford an average $766; 2-paycheck families average $844.

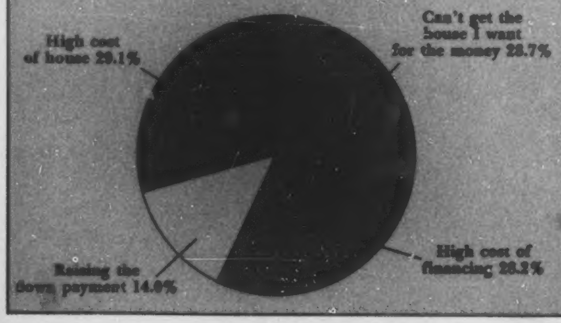
Maximum affordable monthly payment



High Costs And Expectations Are The Greatest Obstacles

High new-home price tags and the high cost of financing are the greatest reasons for not purchasing a home now.

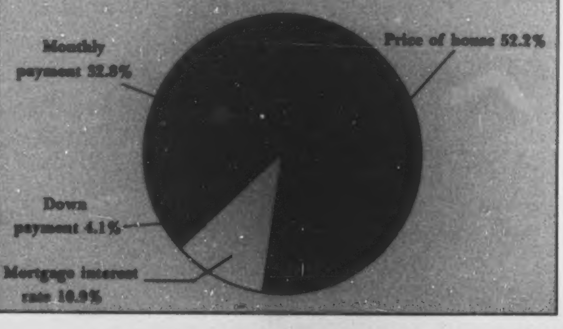
Greatest single obstacle to purchasing a home



Buying Decision Is Balanced On Price And Monthly Payments

More than 50% of buyers say the price of the house significantly affects the buying decision. That percentage goes to 60.3% for buyers age 50 to 59.

Most important in buying decision

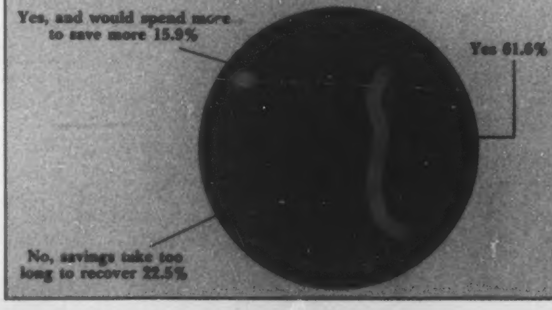


They're Frugal, But They Will Pay More Now To Save Down The Road

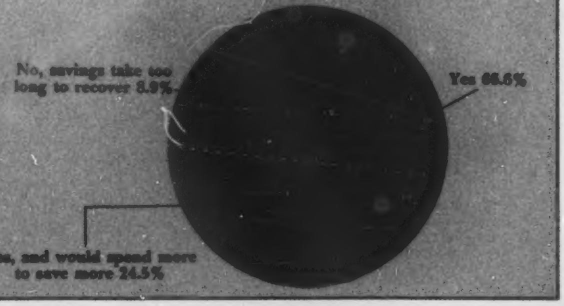
Thrifty Consumers Will Pay More To Save More

More than 75% of consumers would spend at least $1000 more on low-maintenance materials in order to save an average of $200 annually on maintenance costs. And 91.1% of consumers would spend at least an extra $500 on energy-saving products or features to save $100 per year on heating and cooling.

Would spend additional $1000 to save $200 per year in maintenance



Would spend an extra $500 to save $100 per year on energy costs



Government Should Help First-Time Buyers

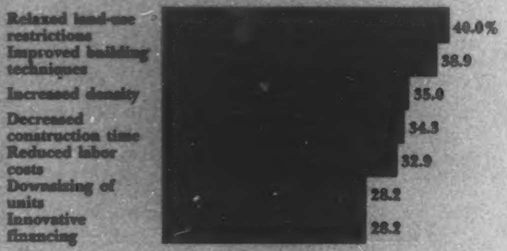
More than 68% of consumers are in favor of some type of government help to assist first-time buyers. The most popular plans among first-time buyers were those that keep payments low or have a low down payment.

Government help for first-time buyers	
Offer financing plans to keep payments lower	19.3%
Offer financing plans with low down payment	18.4
Provide tax savings for down payment	13.0
Subsidize mortgage interest rates	11.1
Help builders provide more affordable homes	7.1
Provide no government help	31.1

Reducing Costs May Mean Changes In Codes, Builder Initiatives

Builders reported the areas that offer the greatest potential for reducing the price of new housing may require changes in building codes. Others may require creative planning on the part of builders.

Greatest potential for reducing price of housing



Don't Cut Corners, Just Trim Excess Costs

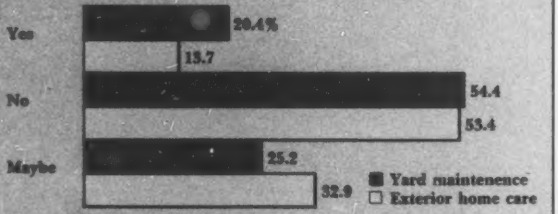
Builders say that the most popular way to trim costs in new homes is to use standard designs; 60% of builders in the North Central region rely on this cost-cutter.

Ways that builders can help reduce cost of new homes	All builders
Use standard designs to save money	45.0%
Use smaller lots to build homes	36.3
Build attached townhomes and condos	33.2
Design homes for future expansion	30.5
Build smaller homes	27.0
Erect prefab homes	12.8

Most Buyers Still Want To Do Their Own Maintenance

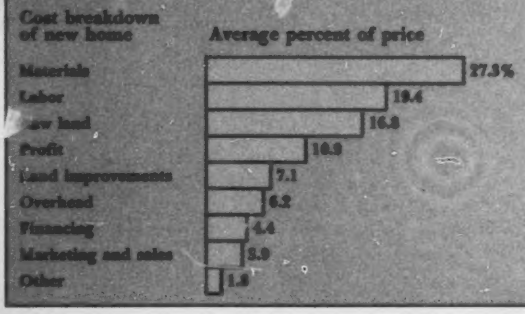
For those who choose to buy a single-family house, more than 50% would not be willing to pay a monthly fee for yard maintenance or exterior home care. Even among retirees, only 36% were willing to pay for yard work and 22.5% for exterior care.

Consumers willing to pay a monthly fee



Materials, Labor, And Land Account For Nearly 64% Of New Home Price

Three major elements add up to an average of 63.5% of the cost of a new home, say builders. On average, the more expensive the home, the higher the percentage cost of raw land.



Other Survey Highlights On Financing:

- Households are evenly divided between 1- and 2-paycheck families. Slightly more than 50% of attached buyers have only 1 income as do buyers of homes less than $85,000 and more than $150,000. Among first-time buyers, there are slightly more (51.5%) families with 2 breadwinners, move-up buyers 53.2%; 60% of empty-nesters rely on 1 paycheck as do 61.1% of retirees.
- Consumers (44.2%) say affordable for-sale housing, is available, but very hard to find; 37.4% of consumers said a wide selection of affordable housing was available. Percentages barely differed by buyer type.

WHAT DO YOU HAVE THAT THEY DON'T?

Meet the competition head on. Select products with impact. And don't forget consumers expect quality. Give them what they want—not just what they need.

Buyers Have Great Expectations In Baths And Kitchens

Make the wet rooms practical, but also make them luxurious, say consumers. This chart compares the wants of buyers to what builders offer as standard features in their best-selling models.

Bathroom features	Consumers want	Standard offer in model
Medicine cabinet	86.1%	60.1%
Exhaust fan	85.7	90.6
Linen storage cabinets	79.7	59.4
Tub/shower door	65.8	59.4
Ceramic tile floors	53.1	46.5
Ceramic tile walls	49.3	28.9
1-bowl vanity	47.5	46.5
Safety features	43.8	23.3
2-bowl vanity	40.4	50.0
Bathroom heater	38.7	24.2
Colored fixtures	36.2	51.3
White fixtures	27.6	38.7
Dressing area	26.4	28.3
Mirrored wall	22.5	71.4
Ceramic tile vanities	21.9	13.8
Skylight	17.9	29.9
Compartmentalized bath	17.7	13.2
Whirlpool	14.0	29.6
Bidet	4.2	4.1
Sauna	3.0	1.9
Kitchen features		
Range/oven	89.0%	90.9%
Dishwasher	80.6	95.6
Vinyl floor covering	69.3	78.6
Self-cleaning oven	66.8	65.1
Pantry	66.4	56.0
Garbage disposal	65.2	74.8
Stainless-steel sink	60.3	65.4
Refrigerator	59.8	45.3
Single-handle faucet	56.5	78.0
2 sinks	54.9	41.5
Fluorescent ceiling lighting	52.5	50.6
Laminated plastic countertop	44.6	75.2
Microwave oven	41.2	47.8
Ceramic tile countertop	31.2	16.0
2-handle faucet	31.1	13.2
Enamel/porcelain sink	29.7	32.1
Ceramic tile floors	21.6	16.7
Trash compactor	19.7	15.7
Ceramic tile walls	12.6	6.0
Carpeted floor	9.2	6.3

Practical Functions Make 'Intelligent' House Attractive

An "intelligent" house is one in which a centralized electronic system monitors and controls different functions in the home. The most popular intelligent features are security/safety and energy management.

Intelligent house features	Consumers want	Average cost willing to pay
Security/safety	71.0%	$1004
Energy management	68.6	968
Entertainment	43.8	838
Communications	39.1	516
Service/data	15.8	444

Other Survey Highlights On Products:

- ✓ More than 40% of builders use R-19 or more insulation in the walls of their best-selling home; nearly 40% use R-11 to R-13 insulation. More than 50% of builders reported using R-30 or more insulation in the ceilings of their best-selling home.
- ✓ Builders reported their standard allowances included: $1045 for lighting fixtures, $1859 for plumbing fixtures, $1787 for appliances, and $2510 for landscaping.
- ✓ The 2 most popular roofing materials were fiberglass shingles (42.8%) and asphalt shingles (36.9%), reported builders.
- ✓ A forced-air heating system is included in 63.8% of best-selling models. All builders responding in the East North Central and West North Central regions use a forced-air system. Nationally, 23.2% of model homes use heat pumps. More than 50% of builders in the South Atlantic region include heat pumps in best-selling models.
- ✓ Among standard features in builders' best-selling models, 33% include wallpaper, although 75% of models in the East South Central region and 81.8% of model homes in the West South Central region include wallpaper as a standard feature. Nationally, the Pacific region reports the highest usage of triple glazing with 33% of models including it as a standard feature (national average was only 19.9%). More than 90% of models in the West South Central region and Pacific region include decorative wood molding and ceiling beams as standard features (nationally only 50%).

It's The Extras That Clinch The Sale

Consumers were asked to choose features they would pay extra for. Builders listed which of the same items they include as standard in their best-selling homes. Features are listed by price range. Products make a home functional, but they can also maximize its marketability.

	Buyers choosing option	Builders offer as standard
$100 to $300 options		
Smoke/fire alarm system	67.1%	90.3%
Energy-saving water heater	64.9	80.7
Ceiling fan	58.0	52.2
Self-cleaning oven	55.5	76.9
TV antenna/wall jacks	53.5	83.7
Outdoor lighting	50.2	63.1
Shower enclosure	44.2	68.6
Dimmer switches	38.2	43.1
Water-saving showerheads	36.3	68.0
Water-saving faucets	31.9	62.9
Clock-controlled thermostat	31.4	28.4
Closet organizers	29.7	38.4
Decorative exterior door	27.0	78.6
Patio grill	21.7	2.7
Exterior shutters	21.6	66.8
Trash compactor	21.2	17.4
Gas outlet at fireplace	20.4	37.1
Sump pump	18.9	40.5
Separate cooktop	17.6	23.3
Mirrored doors	16.6	71.4
Interior shutters	8.5	.7
$300 to $500 options		
Garage door opener	53.9%	56.2%
Lawn-sprinkling system	41.6	24.9
Storm door	41.3	36.6
Ceramic tile bathroom walls	40.9	46.5
Microwave oven	39.0	50.4
Power attic ventilator	35.4	26.7
Built-in cabinets (excluding kitchen)	34.5	26.8
Ceramic tile entry	31.1	51.8
Automatic humidifier	26.1	15.0
Patio privacy fence	24.2	21.6
Greenhouse/planter window	21.3	17.2
Wood sliding/patio door	19.0	92.4
Electronic air filter	18.0	11.2
$500 to $800 options		
Paved driveway	66.3%	82.1%
Refrigerator	53.2	45.5
Decking for patio	41.3	60.2
Skylights	36.7	57.3
	Buyers taking option	Builders offer as standard
Extra-large tub	29.7%	40.6%
Concrete patio	24.7	63.4
$800 to $1000 options		
Upgraded carpeting	61.9%	28.8%
Double-glazed windows	46.9	89.9
Closet/utility room shelving	39.5	65.2
Patio roof	28.8	20.7
Water softener	26.4	6.4
Intercom system	18.2	17.5
$1000 to $1200 options		
Zoned heating/cooling system	64.3%	69.2%
Laundry appliances	56.9	22.3
Central vacuum system	29.8	12.8
Wet bar	19.7	24.9
European-style cabinets	11.7	33.3
$1200 to $1500 options		
Yard fencing	50.2%	27.1%
Tub and separate shower	45.4	62.7
Hardwood floors	44.6	31.8
Solar water heating	25.0	1.4
Kitchen barbecue/grill top	16.5	22.6
$1600 to $2000 options		
Air conditioning	76.6%	76.3%
Storm windows	56.7	41.2
Burglar/security system	34.1	21.4
Bay window	29.9	47.3
Front yard landscaping	29.8	79.3
Insulated basement walls	29.6	47.0
French doors	23.2	46.6
Whirlpool bath	21.3	32.9
Sauna	7.5	2.8
Bidet	4.1	3.3
$3000 to $6000 options		
Fireplace	76.8%	68.4%
Hot tub	32.6	3.3
Additional powder room	16.7	38.5
$6000 to $12,000 options		
Screened porch/Florida room	59.0%	20.0%
Complete landscaping	56.4	73.4
$12,000 to $20,000 options		
Swimming pool	56.7%	14.0%
Rec room in basement	52.4	14.6

NOTE

Some charts and graphs were color-coded in the original document. While it has not been possible to reproduce these items in color, their equivalent values on the black-and-white scale are often distinct enough to convey the same information as the original colors.

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MID-FEBRUARY 1989

REMODELING

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Special Research For A Special Issue

By Roy L. Diez,
Editor in Chief

This "extra" mid-month issue of *Professional Builder* magazine has been custom tailored for builders/remodelers who do room additions and major structural alterations.

Structural additions/alterations is now the largest single dollar volume component of the remodeling market. Expenditures for residential room additions and alterations, alone, exceed $50 billion annually.

More important, about 75 percent of residential remodeling activity is professionally done. And, 69 percent of all professionally done additions and alteration work is now done by professionals also involved in new construction.

Hence, this issue—a targeted editorial and advertising product for a special builder/remodeler audience.

Much editorial effort and research went into preparing the issue. The remodeling statistics highlighted on this page, for example, are taken from a mail survey to builders/remodelers. In all, 419 responses were received in the survey—with some interesting results:

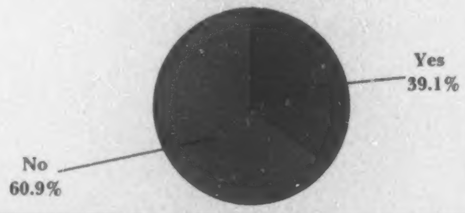
☐ The typical home remodeled by today's professional builder/remodelers is 29.9 years old. Few of the homeowners remodeling (only 9.9 percent) are the original buyers of the home. On average, the current owners have lived in the home 7.8 years.

☐ Most residential room additions pencil out in the $10,000 to $35,000 range, kitchens at $5,000 to $20,000, and baths at under $10,000 (see chart).

☐ The typical builder/remodeler surveyed has 7.1 full-time employees. Besides himself, 0.8 employees are family members and 1.0 are clerical positions.

☐ Finally, when asked if they have ever remodeled homes they have built new, nearly 40 percent of respondents said, yes (see pie chart). A result strongly indicative of the high percentage of new home builders now active in remodeling. ☐

Do You Ever Remodel Homes You Have Built New?



Average Remodeling Costs

	Under $5000	$5000-$10,000	$10,000-$20,000	$20,000-$35,000	$35,000-$50,000	Over $50,000
Kitchens	12.4%	42.2%	26.3%	11.4%	3.7%	4.0%
Baths	30.3	44.8	18.2	2.3	2.1	2.3
Room Additions	5.5	14.7	28.4	23.8	13.4	14.2

PB Remodeling Survey: Most Expensive Job

Builder/remodelers said they have an average of 4½ jobs underway, with the most expensive valued at $118,655.

Feeling a bit like a juggler lately? No wonder. According to a *Professional Builder* survey, remodelers have an average of 4.5 jobs underway at one time.

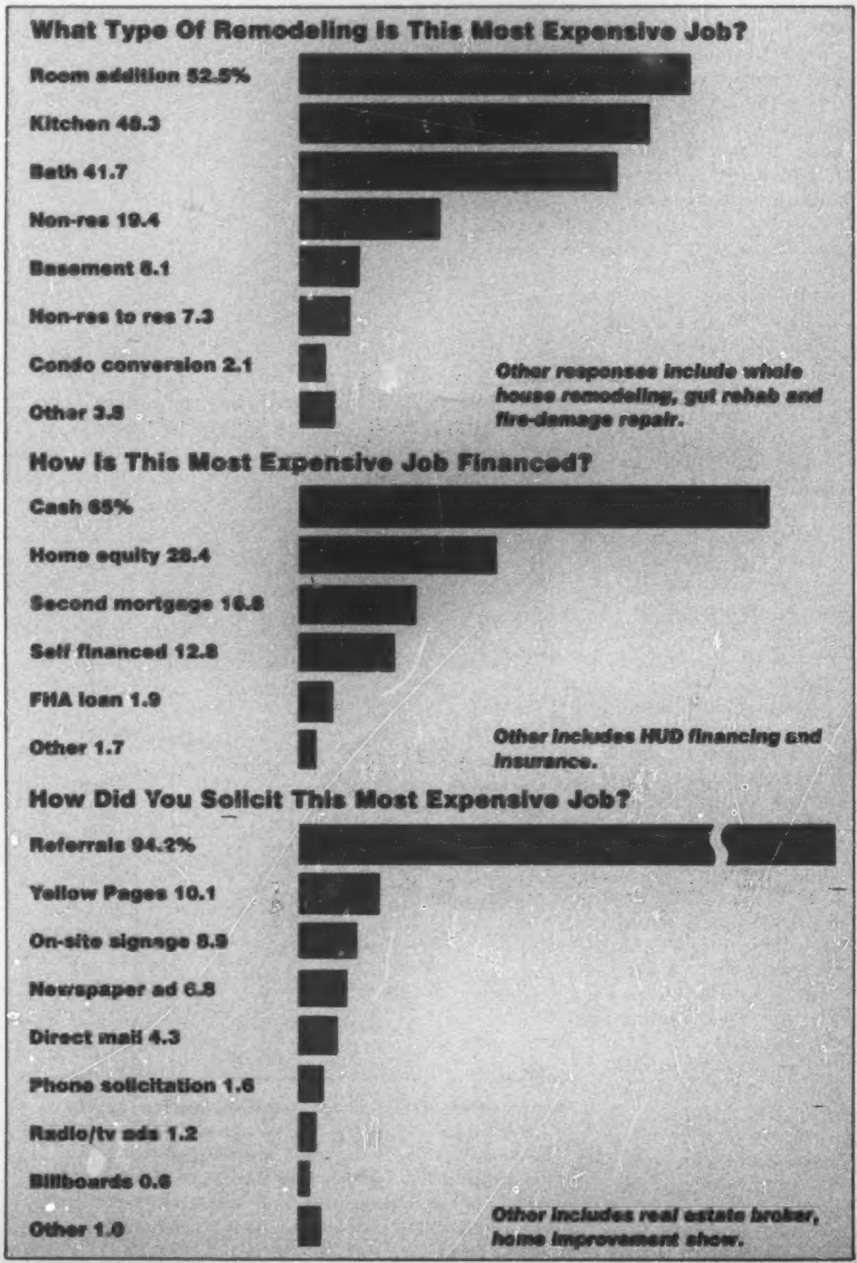
The value of the most expensive of these jobs was $118,655.

This survey is based on 525 responses from readers of PB. Results from other PB surveys are found elsewhere in this issue.

More than half of the remodelers surveyed said their most expensive job is a room addition. Kitchens and baths rated high in this survey, too.

By and large, most of these jobs were paid for in cash. Just less than 13 percent were financed by remodeling companies.

Most remodelers came across this most expensive job by word-of-mouth referrals (94.2 percent). Next most popular advertising medium was the Yellow Pages (10.1 percent). □



REMODELING SURVEY

INDUSTRY LEADERS SHARE SECRETS OF DIVERGENT MARKET

Who remodels America? It's a firm that's been in business almost 17 years; a firm with average annual revenues of $1.8 million; a firm that finds most of its jobs from referrals; and a firm that also is involved in the construction of new homes.

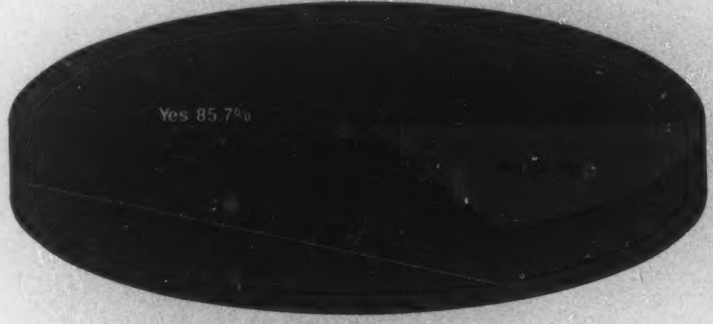
Last year, *Professional Builder* surveyed 2000 readers who said they were involved in building room additions and major structural remodeling. The survey results here are based on 615 responses.

The average remodeler completed six room additions in 1987 at an average cost of $22,445 (median of $20,000). Nearly 47 percent expected their remodeling activity to increase in 1988.

This survey profiles remodelers' business activity and takes an in-depth look at room additions and the products remodelers use. Taken together, the results present a clear picture of who remodels America. □

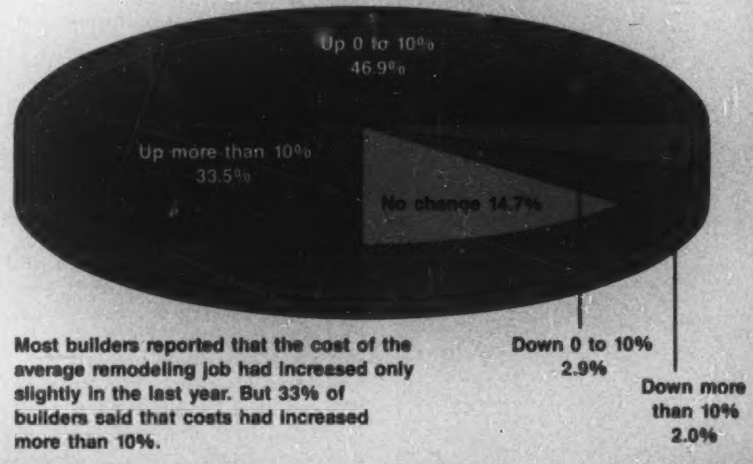
Design Service For Customers Is A Common Feature

Builder provides design services for customers



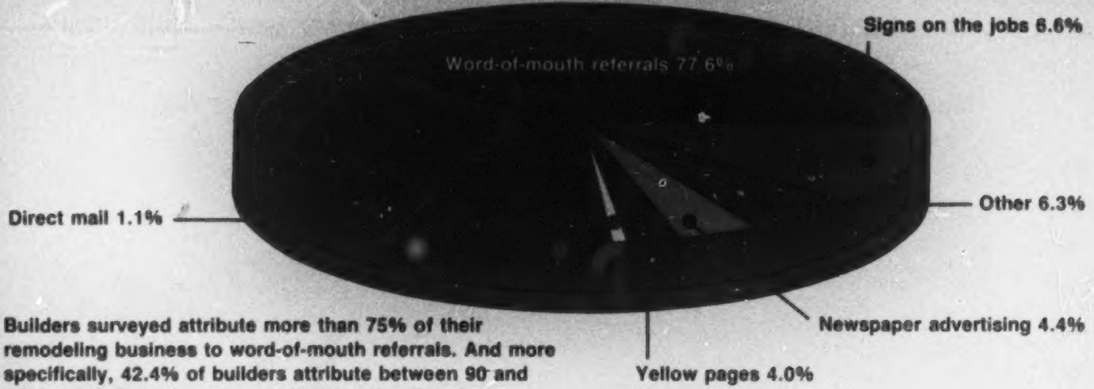
More than 85% of builders provide their remodeling customers with design services for room additions and major remodeling projects; 60% of builders with sales exceeding $10 million also provide design services.

The Cost Of The Average Remodeling Job Increased Slightly Last Year



Most builders reported that the cost of the average remodeling job had increased only slightly in the last year. But 33% of builders said that costs had increased more than 10%.

Word-Of-Mouth Referrals Contribute Significantly To Remodeling Business



Builders surveyed attribute more than 75% of their remodeling business to word-of-mouth referrals. And more specifically, 42.4% of builders attribute between 90 and 100% of their business to word-of-mouth referrals.

Builders Report Wide Variety Of Remodeling Activities

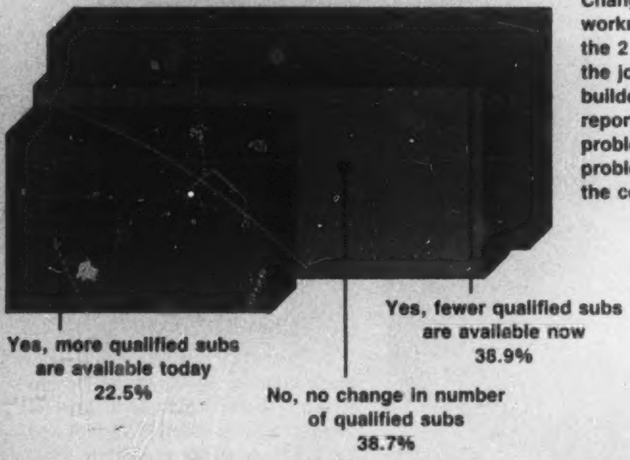
Types of remodeling activities	Builders active	Average jobs completed
Room additions/major alterations	76.3%	6.3
Bathrooms (remodeled or added)	67.5	6.2
Kitchens (remodeled or added)	67.0	6.0
General overall remodeling	53.3	8.3
Non-res remodeling jobs	41.5	6.5
Total restructure for new use	35.4	2.9
Prime window replacement	32.5	12.2
Condo conversions	3.7	15.8
Other types of remodeling	—	20.7

In the past year, builders completed a wide range of remodeling projects. About 75% actively constructed room additions or major alterations. More than 66% remodeled or added bathrooms or kitchens. More than 50% were involved in general overall remodeling.

Qualified Remodeling Subcontractors Are Available

More than 60% of builders reported either no change in the number of qualified remodeling subcontractors or that even more qualified subs are available now. But still, almost 40% of builders are dissatisfied with the qualifications of subs available today.

Is there a change in the number of qualified remodeling subcontractors available today?



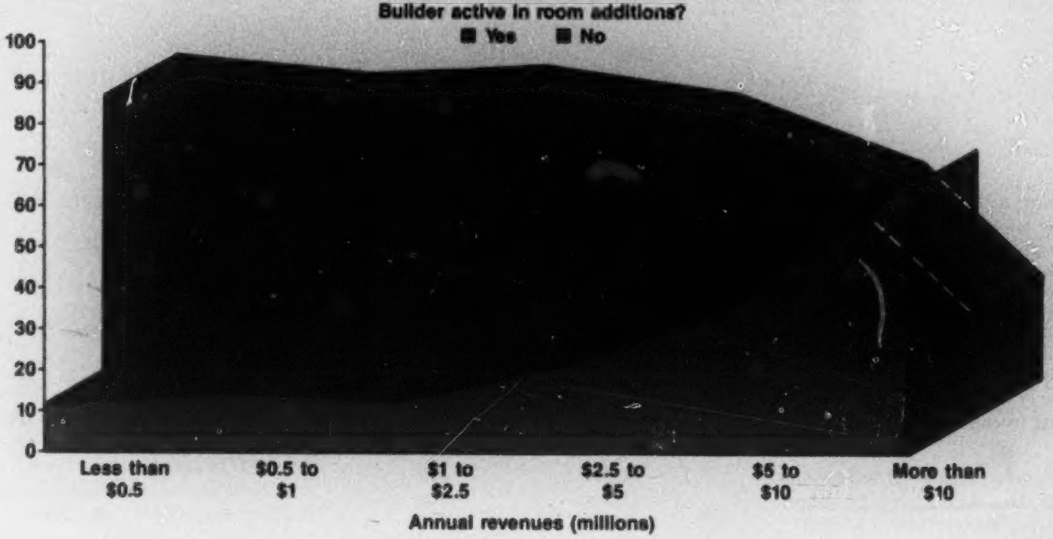
Workmanship And Owner Changes Are 2 Biggest Construction Problems

Changes by owners	48.9%
Workmanship of subcontractors	38.6
Unanticipated construction problems	28.5
Supplier or supply problems	23.4
Local building officials	15.4
Faulty or poor quality materials	15.4
Other	4.6

Changes by owners and the workmanship of subcontractors are the 2 most-mentioned problems on the job site, according to surveyed builders. About 28% of builders reported unanticipated construction problems and supplier or supply problems also posing difficulties on the construction site.

Room additions are a significant part of the remodeling market, say builders. Many expect to do even more in the next year. The average major job was a $20,000 alteration to a single-family home's family area.

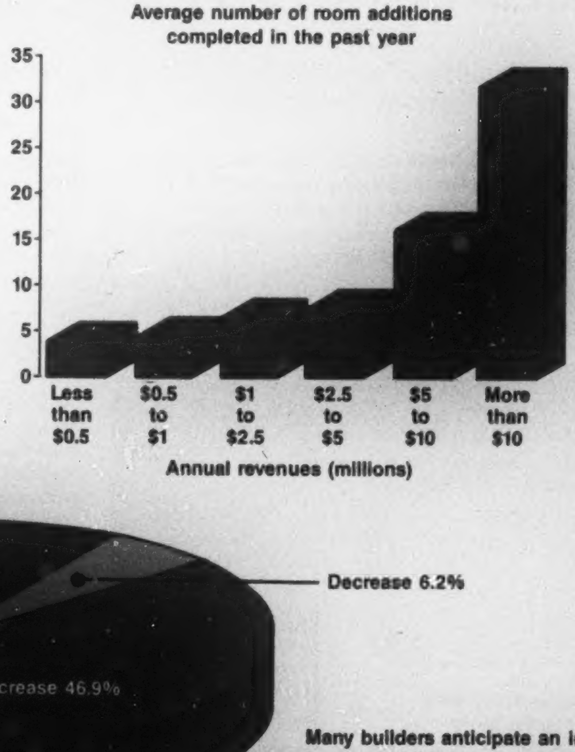
Most Remodeler/Builders Constructed Room Additions Last Year



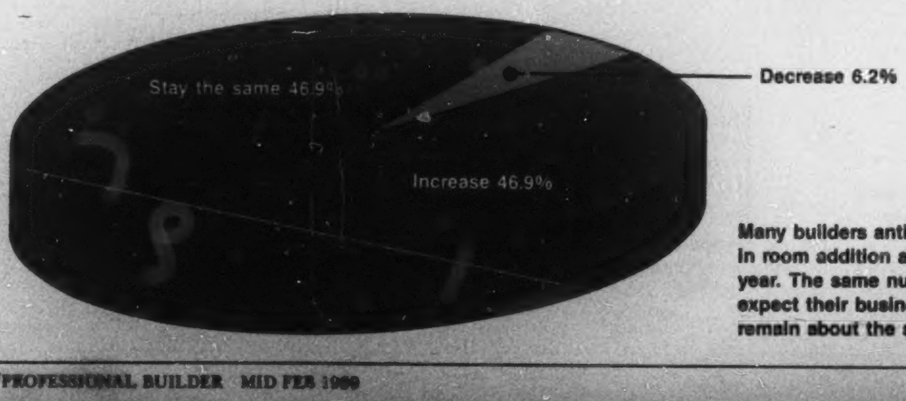
More than 80% of builders reported completion of room additions in the past year. Room addition activity is shown according to builders' annual sales volume.

Room Addition Activity Varies By Company Size

Last year, builders reported an average of 6 completed room additions. As the chart indicates, the number of room additions depends largely on the size of the building firm.

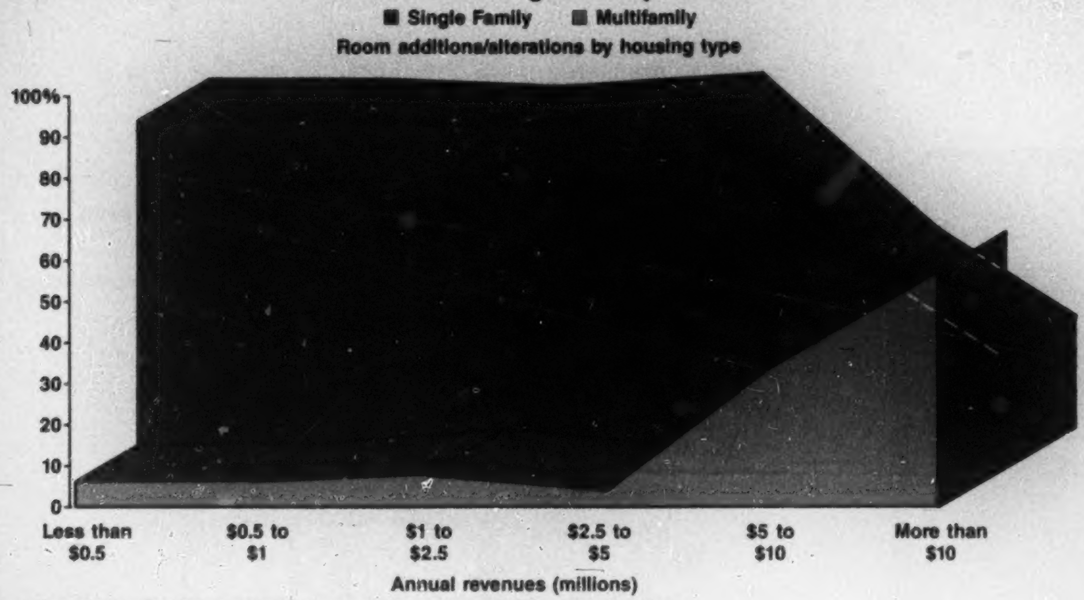


Builders Expect Increased Business In Room Additions Next Year



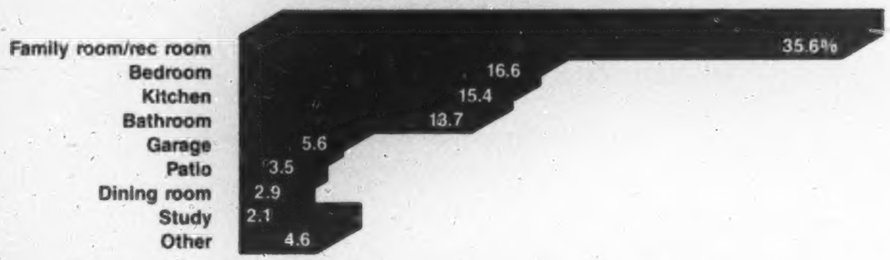
Many builders anticipate an increase in room addition activity in the next year. The same number of builders expect their business activity to remain about the same.

Most Room Additions And Major Alterations Are Done In Single-Family Homes



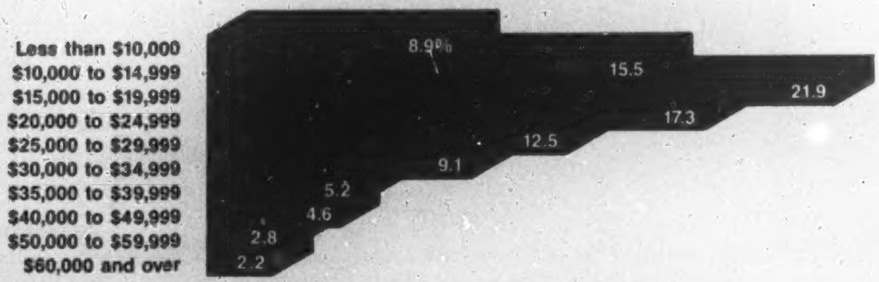
More than 90% of builders reported completing room additions and major alterations in single-family homes. Among all builders responding, only 7.8% completed work in multifamily structures. The percentage of work by housing type and builder size is reported in the chart.

Family Rooms And Rec Rooms Dominate Room Addition Activity



More than 35% of all room additions built in the past year included the family room or rec room areas. The next 3 most popular room additions were the bedroom, kitchen and bathroom.

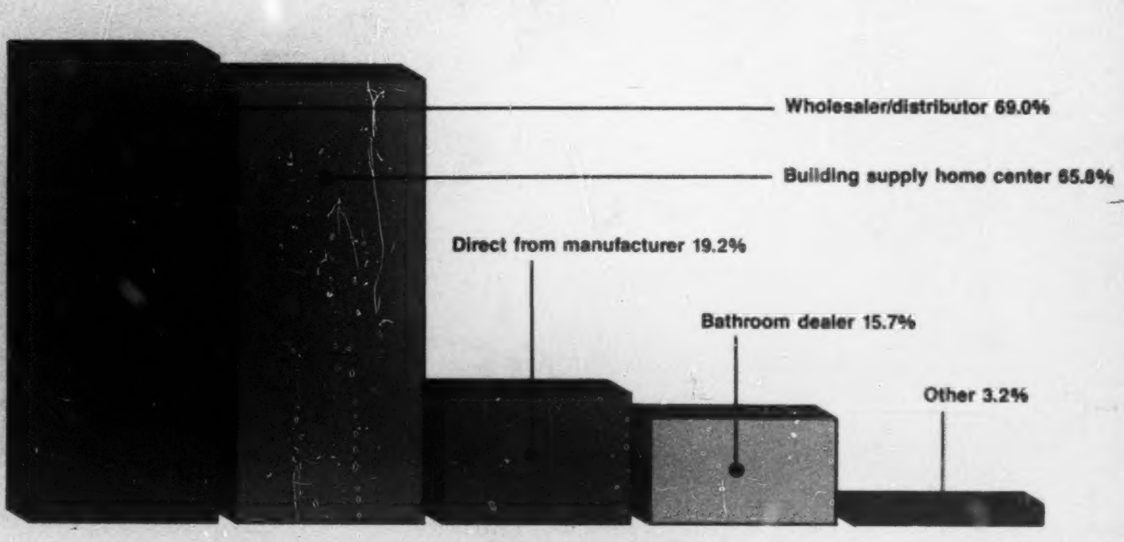
The Average Cost Of A Room Addition Exceeds $20,000, Builders Say



The cost of a room addition will depend on the room, amount of construction involved, and amenities included. Based on their remodeling experience, builders reported that the average cost of a room addition was $22,445. The chart shows a breakdown of average costs, according to builder response.

Remodeling sucess hinges on a blend of old and new. Correctly selected and installed products transform unusable to functional, ugly to appealing.

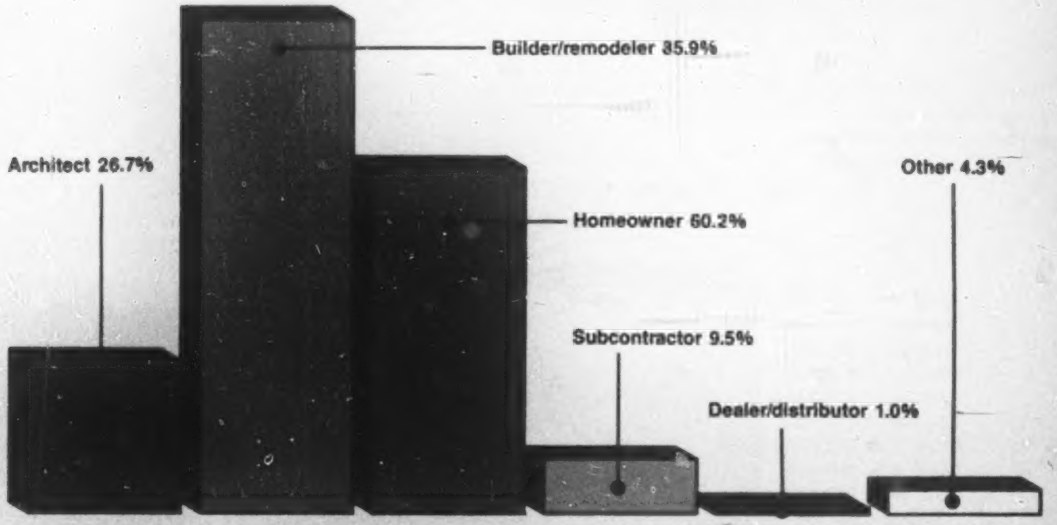
Builders Depend On Distributors And Home Centers For Products



Almost 70% of builders turn to wholesaler/distributors or building supply home centers. Among remodelers with sales in excess of $10 million, 81% use wholesaler/distributors, 61.9% purchase direct from the manufacturer, and only 28.6% go to building supply home centers.

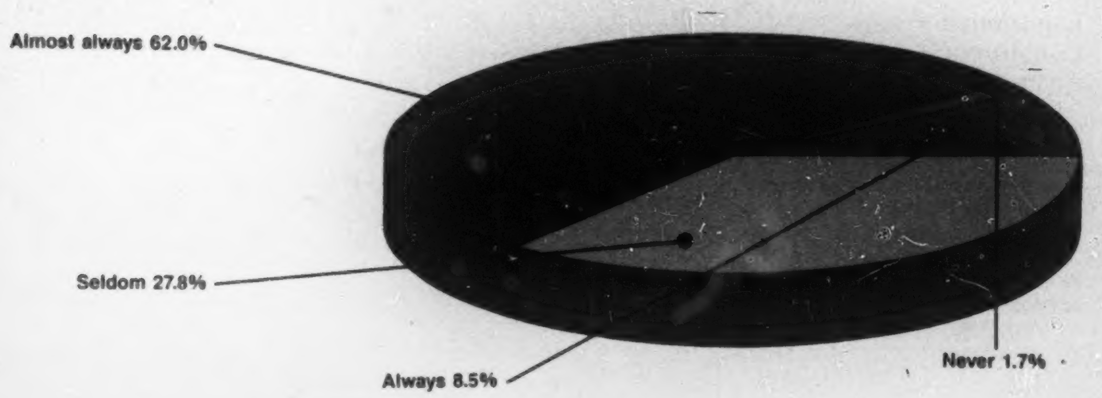
Builders Make The Decision In Product Selection

Who selects the products for remodeling projects?



Builders are most likely to decide which brand of products are to be used. Homeowners also play a significant role in product selection.

Windows And Doors Are Prime Candidates For Replacement



More than 60% of builders reported they almost always replace windows and doors when doing a room addition or a major structural change.

The Basics Dominate The Builder's Shopping List For Remodeling Projects

Type of products purchased for remodeling projects	Builders purchasing	Type of products purchased for remodeling projects	Builders purchasing
Windows	97.1%	Range hoods/fans	69.1%
Locksets	96.8	Appliances	68.5
Insulation	94.9	Medicine cabinets	66.5
Interior doors	94.6	Garage doors	64.8
Roofing	94.2	Paddle fans	61.1
Exterior doors	93.4	Thermostats	60.0
Cabinets	88.8	Hardwood flooring	59.2
Plumbing fixtures	87.9	Resilient flooring	58.8
Lighting fixtures	87.3	Garage door openers	57.1
Siding	86.4	HVAC	52.9
Faucets	84.5	Whirlpools	47.1
Countertops	84.4	Prefab fireplaces	45.2
Sinks	83.3	Door chimes	41.2
Vanities	83.0	Greenhouse windows	26.5
Skylights	82.8	Sunrooms	26.4
Ceramic tile	81.1	Hot water dispenser	24.8
Tub/shower enclosure	76.0	Central vacuum systems	23.1
Closet shelving	75.2	Intercoms	20.6
Decorative molding	70.2	Steam baths/saunas	19.2
Patio hinged doors	70.2		

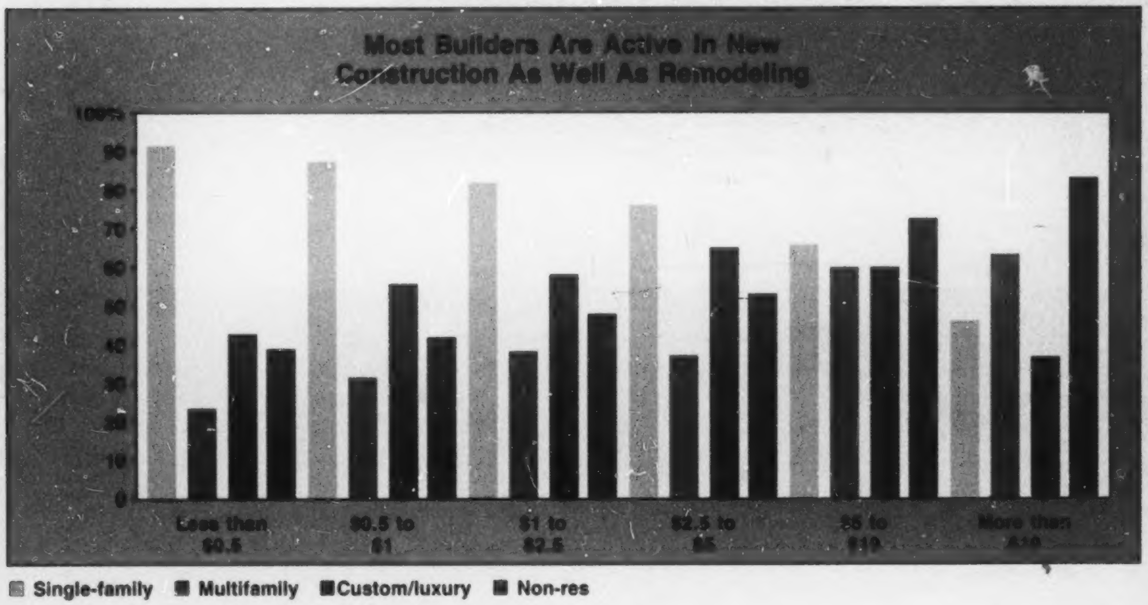
When doing room additions and major remodeling jobs last year, more than 90% of builders reported purchasing windows, locksets, insulation, roofing and interior/exterior doors. The variety of other products purchased reflects more specific remodeling work, such as kitchen and bathroom remodeling.

Typically, builders who remodel also are active in new construction, using the same crews for both activities. They have average annual sales of $1.8 million with more than half coming from remodeling and room additions.

Remodeling Firms Have Experience In New Construction And Remodeling

Builders who are active in remodeling have been in the construction business an average of 16.9 years and have been doing remodeling work for an average of 14.2 years. Almost 25% of remodeling builders have been in the construction business for 25 years or more.

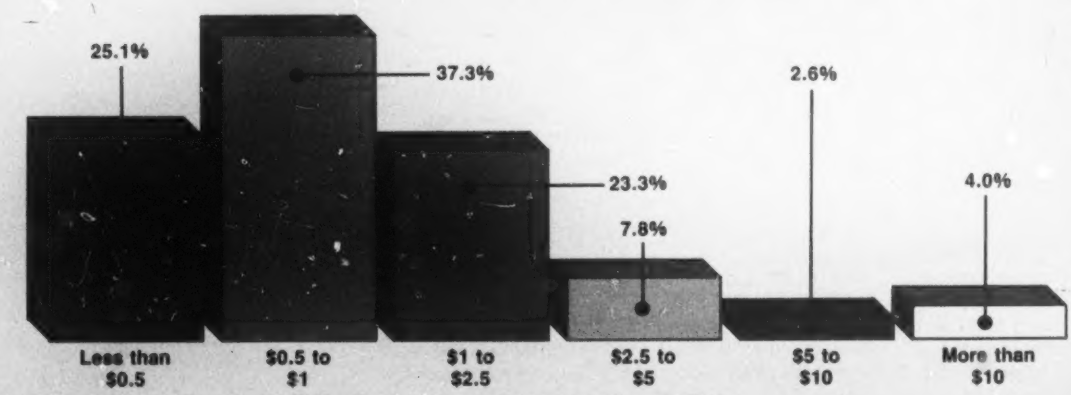
Number of years firm has been in business	In construction business	In remodeling work
Less than 5 years	9.5%	14.6%
5 to 9 years	20.0	24.6
10 to 14 years	24.0	24.3
15 to 19 years	15.3	11.7
20 to 24 years	8.1	6.9
25 years or more	23.2	18.0
Average years in business	16.9 years	14.2 years



Construction activity by annual revenues (millions)

Smaller Builders Dominate The Remodeling Field

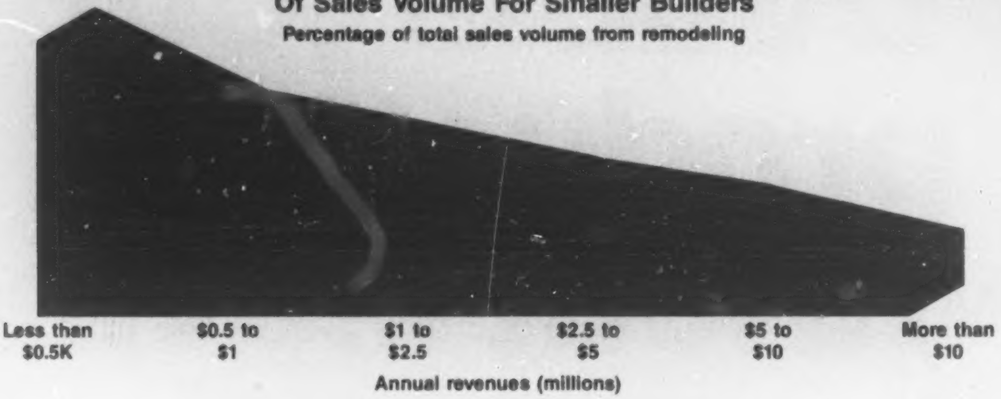
Firm's annual sales volume (millions)



More than 85% of responding builders reported an annual sales volume of less than $2.5 million. The overall average annual sales volume was $1,832,000.

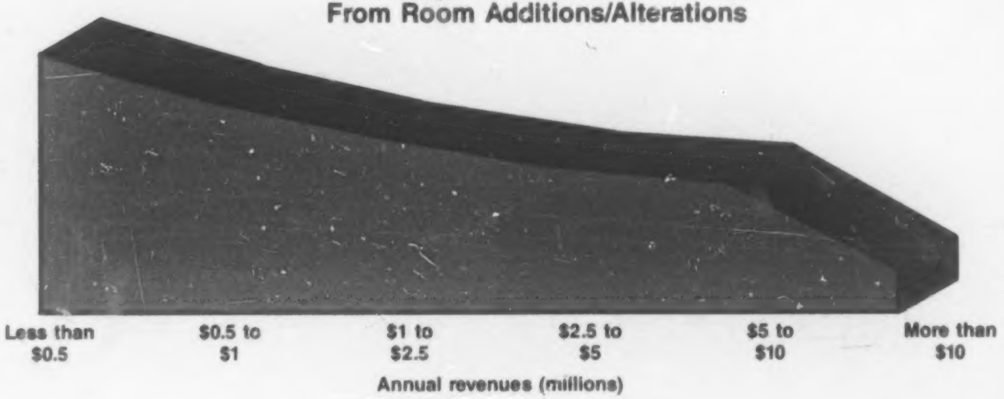
Remodeling Provides Larger Percentage Of Sales Volume For Smaller Builders

Percentage of total sales volume from remodeling

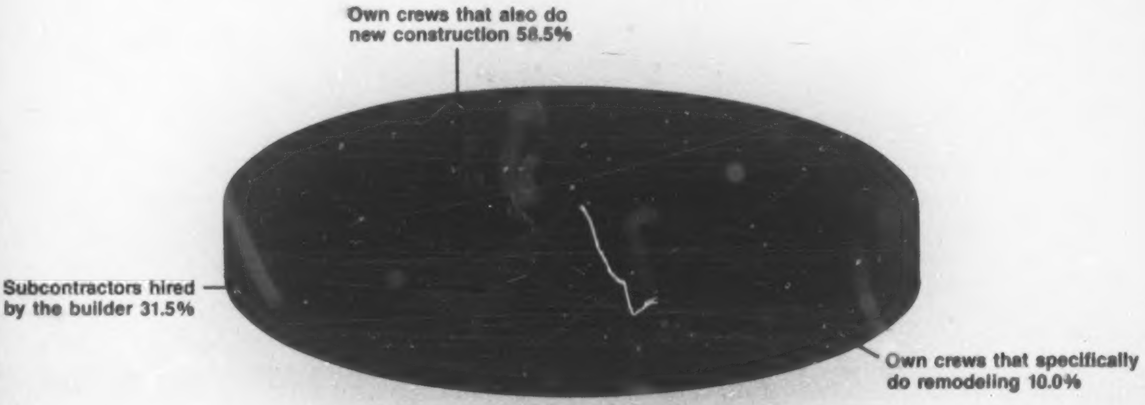


As shown, remodeling and room additions provide a larger share of a small builder's total sales volume. Overall, builders reported that remodeling provided an average of 36.7% of total sales volume. Room additions/alterations provided an average of 25% of total volume.

Percentage Of Total Sales Volume From Room Additions/Alterations



Who does the work?



A builder's own construction crews do new construction and complete almost 60% of the remodeling work and room additions. Subcontractors and a builder's own special remodeling crew complete the balance of the work.

Professional Builder

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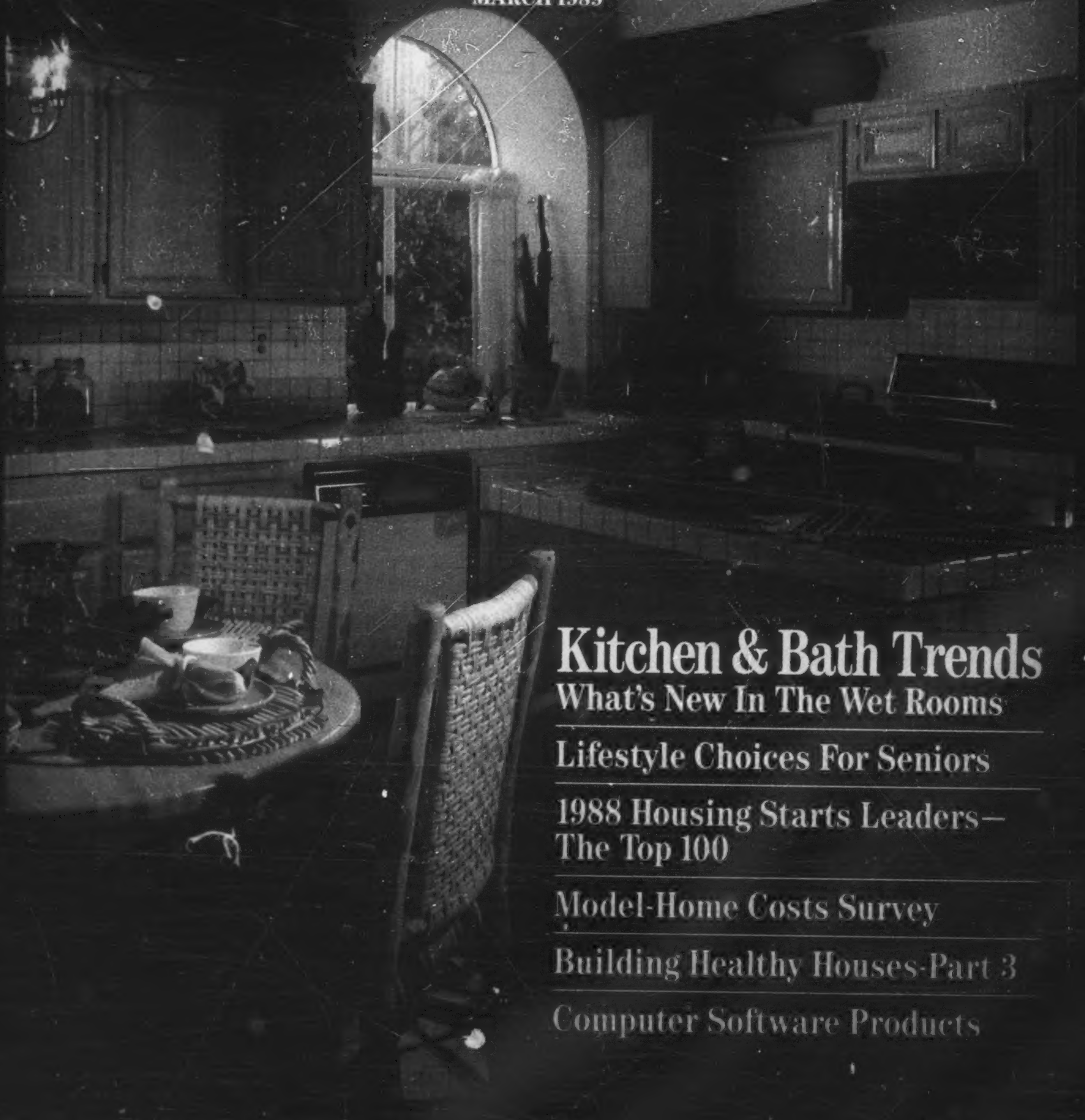
MARCH 1989



Kitchen & Bath Trends

What's New In The Wet Rooms

Lifestyle Choices For Seniors

1988 Housing Starts Leaders—The Top 100

Model-Home Costs Survey

Building Healthy Houses-Part 3

Computer Software Products

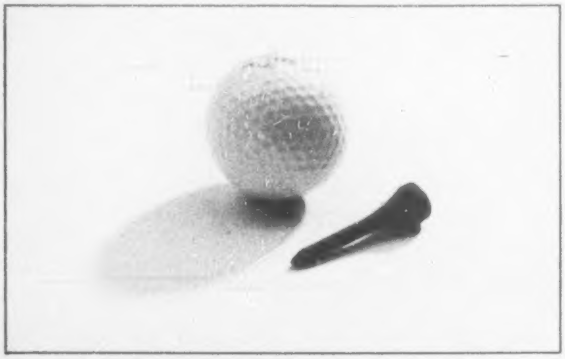
MARCH • 1989

Professional Builder

VOL. 54

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

A crackling fire warms a master bathroom. Such a custom touch is one trend we see in kitchens and baths in newly built housing. Page 118.



Lifestyle sells seniors housing today, whether it's a golfing community for active seniors or a lifecare facility for the elderly. Page 134.

One hundred builders accounted for 17 percent of the housing starts in the United States last year. A look at who they are and what they built. Page 144.

FEATURES

Trends From Kitchens & Baths 118

Geometry, nostalgia, rich surfaces, decorative tile, custom touches, bold windows and natural lighting are some of the trends seen in builders' best-selling model houses.

PB editors Sue Bady and Eric Benderoff visit two dozen kitchens and baths and describe the elements that turn "be backs" into buyers.

Lifestyle Choices For Seniors 134

One thing builders have learned is that those aged 55 and older are not a homogenous group. There are distinct submarkets, defined by physical well being, mental outlook and lifestyle.

This 10-page report shows what's working around the country in the way of housing for seniors. Central to success in this market is to know what buyers want and expect. PB editor Eli Adams tours for-sale and rental housing. In North Carolina, Oaks Development builds three products within the same community—independent-detached and attached housing and group living for the physically impaired. A Las Vegas builder first conducted focus-group interviews to learn what active seniors want.

The Giant 100 144

Last year, 100 builders accounted for nearly 17 percent of all housing starts. This exclusive special report identifies the nation's largest builders.

Trammel Crow Residential Cos. tops the list with nearly 13,000 starts—12,000 in rentals. The Ryland Group built the most for-sale housing in 1988—almost 9800 units. This in-depth report shows number of for-sale detached and attached housing starts as well as rental housing starts.

Remodeling Project Of The Month 155

A San Diego house gets a new lease on life. Thomas Construction retained the old and added the new in this 2300-square-foot house. The two-level home is connected by a dramatic winding staircase.

On the Cover

Bold window, sloping ceiling and the clean look of ceramic tile brighten this kitchen at California Ridge, built and designed by Kaufman and Broad. Color Design Art merchandised the houses, which sell from $142,000. Photo by Glen Allison.

Professional Builder

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

Buyers will camp out when a builder offers value. Page 55.

Model homes—who uses them? How are they used? Associate editor Sue Bady analyzes exclusive PB survey results and interviews builders who sell from models. Page 24. **Apartment builder** achieves 50 units to the acre with four-story buildings over two levels of underground parking. Page 32. **Building healthy houses.** In part three of our series, Dan McLeister discusses controlling lead-based paint in remodeling. Page 85. **Vermont ski condos** on a difficult site are built from panelized packages. Page 96.

Computer software plus power tools. Page 170.

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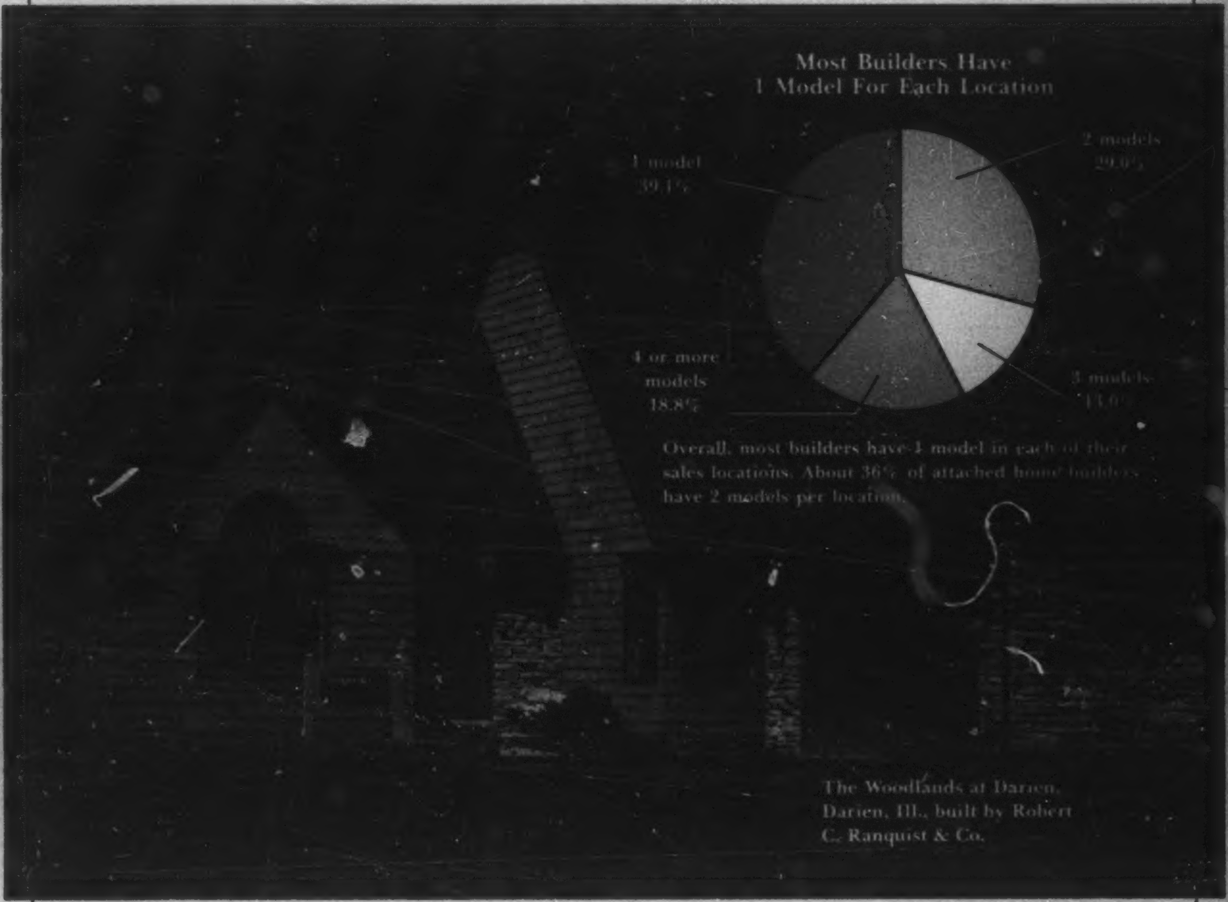
BUSINESS/FINANCE

Selling From Model Homes

Judging from the results of PB's 1988 survey, a large proportion of builders recognize the selling value of models.

By Susan Bady, Associate Editor



Overall, most builders have 1 model in each of their sales locations. About 36% of attached home builders have 2 models per location.

The Woodlands at Darien, Darien, Ill., built by Robert C. Ranquist & Co.

Photo: Jess Smith/Photosmith

The model house is one of the builder's best selling tools. About 53 percent of all builders who responded to *Professional Builder*'s 15th annual consumer/builder survey said they use models.

The number of attached home builders who use models is even higher (77.3 percent), while 34.2 percent of detached home builders say "yes" to models.

The major benefit of a model is that it gives prospective buyers a real perspective on how a furnished home looks, said Arnold M. Karp, vice president of Mallards Landing Development Corp., Stamford, Conn. About 90 percent of the builders in his local market have models, Karp said.

Features that turn buyers on include microwave ovens, wall-to-wall carpeting, cathedral ceilings, skylights and fireplaces, said Karp. The fireplace option is so appealing that most buyers take it even if they don't intend to use it, he said.

T.G. Michael, assistant project manager for Hugh E. DeFazio, Jr. & Associates, Dover, N.J., said models provide an incentive to buy. Prospects are fascinated by window treatments, fixtures, lighting and spacious bedrooms and closets, Michael said.

It makes sense, therefore, for builders to plan their models carefully and invest in good merchandising. The planning process takes six months to a year for 44 percent of builders, and they spend an average of $22,840 to furnish and decorate each model.

Donovan M. Kundiger, owner of First Manhattan Builders, Manhattan, Kan., is a custom builder with his own design studio. Kundiger builds and sells speculative homes. Few builders in his local market have models, he said.

While finding a qualified firm to merchandise models is difficult in that area, Kundiger feels furnished homes sell better than unfurnished ones.

"A decorated model gives buyers a better feel for room sizes and the spatial relationships of furniture," he said. "They can't get that from a plan drawn to a quarter-inch scale."

Respondents to the PB survey agree with Kundiger. About 79 percent furnish their model homes. Nearly 74 percent said their models were fully landscaped as well.

Complete copies of the consumer and builder surveys are available. Cost is $320 each for the consumer or builder portion; $450 if purchased together. Send check or money order to: Consumer Survey, *Professional Builder*, P.O. Box 5080, Des Plaines, Ill. 60017-5080.

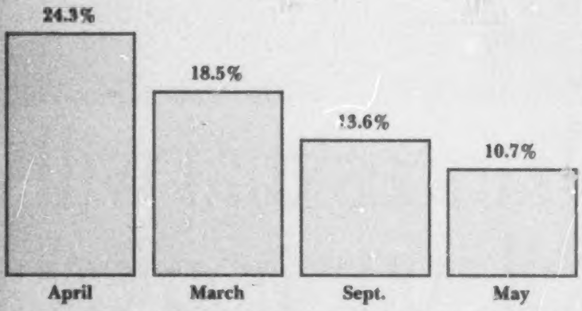
Continued on page 28

Photo: WLMW Advertising

Custom Living's Pine Brook Village, Lincoln Park, N.J.

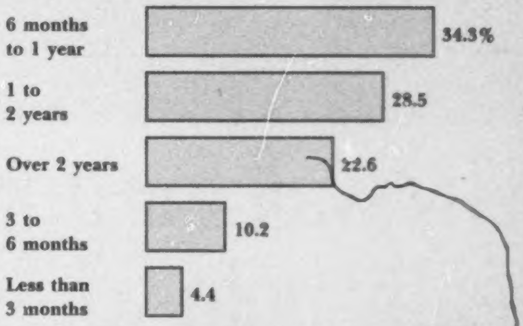
Most New Models Are Introduced In April

Builders generally introduce their new models during the spring and fall. About one-fourth of builders open new models in April.



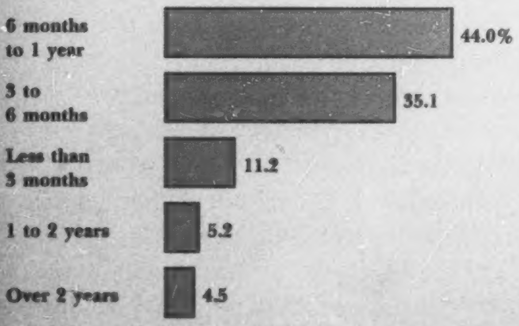
Models Are Used For 6 Months To 2 Years

Builders get lots of mileage out of their models. A little over one-third use them from 6 months to a year; about 28% use them for 1 to 2 years.



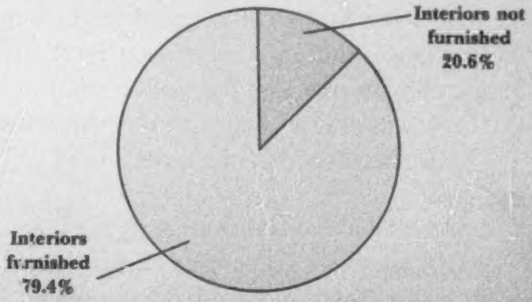
Planning Can Take As Long As A Year

Nearly half of all builders plan models 6 months to a year in advance of introduction.



Furnished Models Are The Way To Go

Builders who furnish their models are clearly in a majority. About 88% of attached home builders do it, as opposed to about 70% of detached home builders.

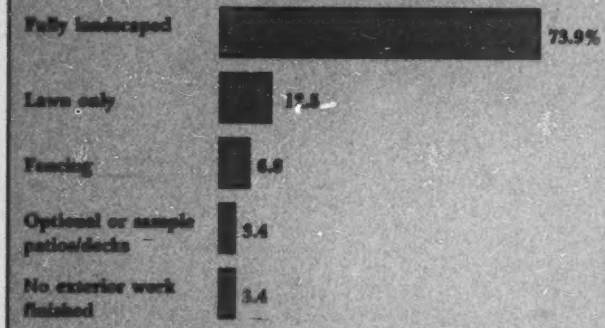


Costs of doing business: the model home

Continued from page 25

Most Models Are Fully Landscaped

Most builders provide full landscaping around their models. The rest provide lawns or fencing. A few install patios or decks.



Models Are A Big Investment

Builders don't stint on furnishing and decorating their models. The average expenditure per model is $22,840.

Cost per model	All builders
Under $10,000	17.0%
$10,000-$14,999	15.0
$15,000-$19,999	15.0
$20,000-$49,999	44.0
$50,000 and over	9.0

Average Landscaping Cost Is $6555

About 31% of all builders said they spent less than $3000 on exterior landscaping, but almost 12% reported spending $15,000 and up.

Cost per model	All builders
Under $3000	31.2%
$3000-$4999	21.1
$5000-$9999	26.6
$10,000-$14,999	9.2
$15,000 and over	11.9

Where's The Sales Center?

Inside the model, responded over half of all builders. The next most likely location is in the garage of a model.

Location	All builders
Inside model	53.6%
Garage	24.6
Company office	9.1
Specially built structure	7.3
Relocatable structure	2.7
Construction trailer	2.7

Sales Centers Can Be Economical Or Elaborate

The cost of building and decorating a sales center ranges from under $6000 to well over $20,000, builders said, with an average cost of $31,078.

Cost of sales center	All builders
Under $6000	28.6%
$6000-$9999	7.8
$10,000-$19,999	15.6
$20,000-$69,999	28.6
$70,000-$99,999	19.5

Window Area Averages 239 Square Feet

One-third of builders surveyed devote from 100 to 199 square feet to windows in their best-selling model.

Window area (square feet)	All builders
Under 100	15.8%
100-199	33.7
200-299	17.8
300-499	22.8
500 and over	9.9

1989 Housing Starts Leaders

THE GIANT 100

Trammell Crow Residential Cos. again is the nation's leading producer of housing starts. *Professional Builder*'s second annual Housing Starts Leaders report, the Giant 100, shows that the Dallas-based company started 12,932 housing units in 1988.

Crow, the largest privately held firm in this report, also started the most rental units in 1988. Largest builder of for-sale housing is the Ryland Group Inc., a multistate builder based in Maryland. Ryland, which is also this report's largest publicly held firm, sold 9795 units in 1988.

The purpose of this report is twofold—to acknowledge last year's leaders in housing starts and to serve as a preview of *Professional Builder*'s 22nd ANNUAL REPORT OF HOUSING'S GIANTS to be published in July. (That report will rank the nation's 400 largest builders based on revenues from housing sold, not started.)

In compiling this report, PB surveyed more than 2000 large-volume builders in December and January. They were asked how many units they started or expected to start in 1988 in three categories—detached for-sale housing, attached for-sale housing and rental apartments. The results were then tabulated and the Giant 100 selected.

Unlike PB's ANNUAL REPORT OF HOUSING'S GIANTS, this report does not include mobile home production. Thus, Giants such as Fleetwood Enterprises, Redman Industries, Skyline Corp. and Champion are not included here.

In some cases, builders were not able to provide starts information and reported sales instead. Or they provided starts estimates because they had not finished year-end reports. Those instances are footnoted.

Also, this report shows only housing started in the United States. Totals for Los Angeles-based Kaufman and Broad Home, therefore, do not include 2000 units started in France and Canada. And Coscan Development Corp.'s totals do not include 614 housing units started in Canada.

In all, the Giant 100 started 245,285 units, or about 17 percent of the 1.47 million units started in the nation last year. The Giant 100 started 157,702 for-sale units and about 87,583 rental apartment units. □

The Giant 100, © Professional Builder, 1989

Rank by starts	Company, location, principal officer	For-sale, detached units	For-sale, attached units	Rental units	Total 1988 Starts
1	**Trammell Crow Residential Co.** 2001 Ross Ave. Dallas, Texas 75201 J. Ronald Terwilliger	203	706	12,023	12,932
2	**Ryland Group Inc.** 10221 Wincopin Circle Columbia, Md. 21044 Charles E. Peck	7635	2160	0	9795[1]
3	**N.V. Ryan L.P.** 7601 Lewinsville Road McLean, Va. 22102 Dwight Schar	5019	3342	0	8361[2]
4	**Cardinal Industries Inc.** 2040 S. Hamilton Road Columbus, Ohio 43232 Austin E. Guirlinger	87	0	7314	7401
5	**PHM Corp.** (formerly Pulte Home) 33 Bloomfield Hills Parkway Bloomfield Hills, Mich. 48013 James Grosfeld	6161	1088	0	7249[3]
6	**U.S. Home Corp.** P.O. Box 2863 Houston, Texas 77252 Robert J. Strudler	4337	1961	0	6298
7	**Centex Corp.** 3333 Lee Parkway Dallas, Texas 75219 Laurence E. Hirsch	6133		0	6133[4]
8	**Jim Walter Homes Inc.** 1500 N. Dale Mabry Hwy. Tampa, Fla. 33607 Robert W. Michael	5691	0	0	5691
9	**Weyerhaeuser Real Estate Co.** Building QB-6 Tacoma, Wash. 98477 John W. Creighton Jr.	4600	560	240	5400
10	**National Enterprises, Inc.** P.O. Box 7680 Lafayette, Ind. 47903 D.R. Price	1900	2500	700	5100

1. Sales contracts.
2. Single-family detached includes 207 units built by H.R. Remington L.P., acquired in October.
3. Company estimates as of 1/4/89.
4. Units closed. Company unable to break out detached and attached units.

145

Rank by starts	Company, location, principal officer	For-sale, detached units	For-sale, attached units	Rental units	Total 1988 Starts
11	**M.D.C. Holdings Inc.** 3600 South Yosemite St. Denver, Colo. 80237 David D. Mandarich	4500	500	0	5000
12	**Lewis Homes Group of Cos.** P.O. Box 670 Upland, Calif. 91785 Ralph M. & Goldy S. Lewis	2649	478	1604	4731
13	**William Lyon Co.** P.O. Box 7520 Newport Beach, Calif. 92660 William Lyon	1896	874	1811	4581
14	**Lennar Corp.** 700 N.W. 107th Ave. Miami, Fla. 33172 Leonard Miller	1645	2505	0	4150
15	**Fogelman Properties** 5400 Poplar Memphis, Tenn. 38119 Avron B. Fogelman	0	0	4045	4045
16	**Lincoln Property Co.** 500 N. Akard Dallas, Texas 75201 Mack Pogue	0	0	4012	4012
17	**A.G. Spanos Construction Inc.** 1341 W. Robinhood Drive Stockton, Calif. 95207 Alex G. Spanos	0	3569	0	3569
18	**The Anden Group** 15260 Ventura Blvd., #1700 Sherman Oaks, Calif. 91403 Eugene Rosenfeld	2192	827	424	3443
19	**The Mueller Group** 19550 Pacific Highway South Seattle, Wash. 98188 Henry J. Mueller	0	1700	1750	3450
20	**Kaufman and Broad Home Corp.** 11601 Wilshire Blvd. Los Angeles, Calif. 90025 Bruce Karatz	3400	0	0	3400[1]
21	**Blazer Building Inc.** 1375 Bunker Hill Houston, Texas 77055 Chris Richardson	0	0	3200	3200
22	**Robertson Homes** 6653 Embarcadero Drive Stockton, Calif. 95209 Bart Robertson	20	0	3050	3070
23	**The Worthing Cos.** 5949 Sherry Lane Dallas, Texas 75225 Robert K. Utley III	0	0	3051	3051
24	**Hovnanian Enterprises Inc.** 10 Highway 35 Red Bank, N.J. 07701 Kevork S. Hovnanian	180	2771	0	2951
25	**Citation Builders** 17731 Irvine Blvd. Tustin, Calif. 92680 A. Allen, D. Cheney, S. Schott	2100	800	0	2900
26	**J.L. Mason Group Inc.** 5020 Tamiami Trail North Naples, Fla. 33940 Joseph L. Mason	1850	655	120	2625
27	**V.R.I. Builders** 200 W. Calhoun Temple, Texas 76503-2309 Victor Means	0	0	2620	2620
28	**Presley Cos.** P.O. Box 19672 Irvine, Calif. 92713 Wade Cable	2173	430	0	2603
29	**Colson & Colson Construction Co.** 2741 12th St. S.E. Salem, Ore. 97302 William E. Colson	0	0	2500	2500
29	**Centron Construction Corp.** 3025 112th Ave. N.E. Bellevue, Wash. 98009 James W. Summers	0	2500	0	2500
31	**North American Housing Corp.** P.O. Box 145 Point of Rocks, Md. 21777 R. Carl Benna	1689	675	0	2364
32	**General Homes Corp.** P.O. Box 37148 Houston, Texas 77237 Jim Olafson	2357	0	0	2357

1. Does not include 2000 starts in France and Canada.

Ryland Group, Trammell Crow Co. Are Leaders In For-Sale, Rental Starts

Ninety-five builders started 1000 or more units in 1988, according to this Housing Starts Leaders survey of the Giant 100. The 100th firm—Friendswood Development Co.—started 940 units. In the previous report, *Professional Builder* identified 79 firms that started 1000 or more units.

The 10 largest builders of for-sale housing are (in order): Ryland Group, 9795 units; NVRyan, 8361 units; PHM, 7249 units; U.S. Home, 6293 units; Centex, 6133 units; Jim Walter Homes, 5691 units; Weyerhaeuser Real Estate, 5160 units; M.D.C. Holdings, 5000 units; National Enterprises, 4400 units; and Lennar, 4150 units.

The 10 largest builders of rental housing are (in order): Trammell Crow Residential, 12,023 units; Cardinal Industries, 7314 units; Fogelman Properties, 4045 units; Lincoln Property, 4012 units; Blazer Building, 3200 units; The Worthing Cos., 3051 units; Robertson Homes, 3050 units; V.R.I. Builders, 2620 units; Colson & Colson Construction Co., 2500 units; and Summit Properties, 2233 units.

The top 10 builders this year resembles last year's top 10, with some exceptions. New to the top 10 this year are Centex Corp. (moving up from No. 11 last year) and National Enterprises (not ranked last year).

Falling out of the top 10 are Lincoln Property (to No. 16 from No. 6) and M.D.C. Holdings (to No. 11 from No. 10). □

Rank by starts	Company, location, principal officer	For-sale, detached units	For-sale, attached units	Rental units	Total 1988 Starts
33	**Watt Industries Inc.** 2716 Ocean Park Blvd. Santa Monica, Calif. 90405 Raymond A. Watt	1697	623	0	2320
34	**U.D.C.—Universal Development L.P.** 4812 South Mill Ave. Tempe, Ariz. 85282 Richard Kraemer	1704	559	0	2263
35	**Dominion Developments Inc.** 5911 Orchard St. W. Tacoma, Wash. 98467 J. David Page	0	2255	0	2255
36	**Summit Properties** 212 S. Tyron St. #800 Charlotte, N.C. 28281 William F. Paulsen	0	0	2233	2233
37	**Lusk Co.** 17550 Gillette Ave. Irvine, Calif. 92713 John D. Lusk	1648	48	472	2168
38	**Property Co. of America** 2431 E. 61st St. #800 Tulsa, Okla. 74136 Paul Hinch	0	0	2064	2064
39	**Hunt Building Corp.** P.O. Box 9368 El Paso, Texas 79984 M.L. Hunt	100	1916	0	2016
40	**Tompkins Heritage Homes** 1637 E. Vine St. Kissimmee, Fla. 32743 Steve Hudson, Tom Tompkins	1200	0	800	2000
41	**Calmark Properties, Inc.** 11111 Santa Monica Blvd. Los Angeles, Calif. 90025-3333 John M. Huskey	374	105	1375	1854
42	**J.L. Construction Co.** P.O. Box 369 Carlsbad, Calif. 92008 James L. Franklin	114	0	1726	1840
43	**The Artery Organization Inc.** 7200 Wisconsin Ave. Bethesda, Md. 20814 Allen Geller	32	704	1093	1829
44	**Homestead Land Development** 1777 Murchison Drive Burlingame, Calif. 94010 Lawrence Weissberg	550	0	1232	1782
45	**Lokey Properties** 1800 Bering Drive Houston, Texas 77057 Kenneth R. Lokey	295	126	1356	1777
46	**M/I Schottenstein Homes Inc.** 41 South High St. Columbus, Ohio 43215 Irving Schottenstein	1774	0	0	1774
47	**Standard Pacific L.P.** 1565 W. MacArthur Costa Mesa, Calif. 92626 Ronald R. Foell	1756	0	0	1756
48	**Barnett-Range Corp.** P.O. Box 8189 Stockton, Calif. 95208 Hal Barnett	296	0	1394	1690
49	**Paragon Group Inc.** 7557 Rambler Road #1200 Dallas, Texas 75231 W.R. Cooper	75	0	1586	1661
50	**Forecast Mortgage Corp.** 10670 Civic Center Drive Rancho Cucamonga, Calif. 91730 James P. Previti	1608	0	52	1660
51	**Shelter Canadian Holdings LTD.** 7 Evergreen Place Winnipeg, Manitoba, Canada R3L2T3 Arni C. Thorsteinson	0	0	1625	1625
52	**Picerne Properties** 75 Lambert Lind Hwy. Warwick, R.I. 02886 Ron Picerne	52	0	1572	1624
53	**General Development Corp.** 1111 South Bayshore Drive Miami, Fla. 33131 Robert F. Ehrling	1500	100	0	1600
54	**Clark-Wayland-Tarver Inc.** 4117 N. 44th St. Phoenix, Ariz. 85018-4295 Jere L. Clark	0	1573	0	1573
55	**Warmington Homes** 3090 Pullman Costa Mesa, Calif. 92626 James P. Warmington	1189	210	160	1559

Rank by starts	Company, location, principal officer	For sale, detached units	For sale, attached units	Rental units	Total 1988 Starts
56	**The Harkins Group** 12301 Old Columbia Pike Silver Spring, Md. 20904 Thomas P. Harkins	0	234	1317	1551
57	**Corcoran Jennison Cos.** One Heritage Drive Quincy, Mass. 02171 Joseph E. Corcoran	0	376	1155	1531
58	**Prometheus Development Co.** 2600 Campus Drive San Mateo, Calif. 94403 Robert W. Wagner	0	0	1528	1528
59	**Holtzman & Silverman Construction Co.** 30833 Northwestern Hwy. Farmington Hills, Mich. 48018 Buzz Silverman & Jon Holtzman	77	184	1246	1507
60	**Savill/Sanderlin Co.** 644 Ferguson Drive Orlando, Fla. 32805-1014 W.S. Orosz Jr.	1427	72	0	1499
61	**Ahmanson Developments** 1123 S. Parkview Drive Covina, Calif. 91724 Jeffrey A. Slavin	1210	275	0	1485
62	**Embrey Investments Inc.** 750 East Mulberry San Antonio, Texas 78212 Walter Embrey Jr.	0	0	1464	1464
63	**Edward Rose Building Enterprise** 23999 W. Ten Mile Road Southfield, Mich. 48037 Sheldon Rose	27	0	1400	1427
64	**Barratt American Inc.** 30 Fairbanks Irvine, Calif. 92718 Mark L. Frazier	890	480	0	1370
65	**Oriole Homes Corp.** 1151 N.W. 24th St. Pompano Beach, Fla. 33064 Richard D. Levy	166	1030	160	1356
66	**Continental Homes Holding Co.** P.O. Box 60010 Phoenix, Ariz. 85082 Robert J. Wade	1290	50	0	1340
67	**Holly Corp.** P.O. Box 99953 Tacoma, Wash. 98499 Daniel M. Kelley	0	0	1333	1333
68	**Fieldstone Co.** 14 Corporate Plaza Newport Beach, Calif. 92660 Peter M. Ochs	1331	0	0	1331
69	**J.M. Peters Co.** 3501 Jamboree Road Newport Beach, Calif. 92660 James M. Peters	1158	162	0	1320[1]
70	**The Newtowne Group Inc.** 5890 Sawmill Road Dublin, Ohio 43017 William J. Riat	13	0	1288	1301
71	**Beazer Properties Inc.** 4286-D Memorial Drive Decatur, Ga. 30032 Jerald Cohn	1234	64	0	1298
72	**Lexington Development Corp.** 1156 W. Shure Drive Arlington Heights, Illinois 60004 Ronald J. Benach	405	890	0	1295
73	**Midland Housing Industries, Corp.** 2029 Century Park East Los Angeles, Calif. 90067 Gerald M. Lushing	954	322	0	1276
74	**Amrep Corp.** 10 Columbus Circle New York, N.Y. 10019 Lawrence T. Perlmutter	936	72	248	1256
75	**Biosam Contractors, Inc.** P.O. Box 24827 Jacksonville, Fla. 32241 Robert L. Fleckenstein	36	42	1176	1254
76	**Patt Organization** 422 Allegheny St. Hollidaysburgh, Pa. 16648 P. Jules Patt	246	1001	0	1247
77	**Contempri Homes** Stauffer Industrial Park Taylor, Pa. 18447 Victor DePhillips	1017	221	0	1238
78	**Woodcrest Development Inc.** 17911 Mitchell Ave. Irvine, Calif. 92714 Ronald J. Gilles	1056	179	0	1235

1. Fiscal year 3/1/88 to 2/28/89

Rank by starts	Company, location, principal officer	For sale, detached units	For sale, attached units	Rental units	Total 1988 Starts
79	**Griffin Homes** P.O. Box 9810 Calabasas, Calif. 91302 Paul E. Griffin Jr.	1205	0	0	1205
80	**International American Homes** 1620 Route 22 Union, N.J. 07083 Robert H. Winnerman	600	600	0	1200
81	**Fairfield Communities, Inc.** 2800 Cantrell Road Little Rock, Ark. 72202 C. Randolph Warner Jr.	517	655	0	1172
82	**Convill Development Corp.** 1926 10th Ave. North Lake Worth, Fla. 33461 Richard Siemens	250	900	0	1150
83	**Lycon Group** 15303 Ventura Blvd. Sherman Oaks, Calif. 91403 D. Francescon, R. Francescon, Wm. Lyons	12	1120	0	1132
84	**Coast Fed Properties** 9090 Wilshire Blvd., Third Floor Beverly Hills, Calif. 90211 Alan Casden	289	124	700	1113
85	**McKellar Dev. of La Jolla** 1250 Prospect St. La Jolla, Calif. 92037 Christopher S. McKellar	102	1010	0	1112
86	**Goldrich and Kest** P.O. Box 3623 Culver City, Calif. 90231-3020 Warren Breslow	162	204	741	1107
87	**W.O. Brisben Cos. Inc.** 4750 Ashwood Drive Cincinnati, Ohio 45241 W.O. Brisben	0	0	1097	1097
88	**Calibre Co. of Georgia Inc.** 2100 River Edge Parkway Atlanta, Ga. 30328 Larry T. Bennett	0	0	1092	1092
89	**Drees Co.** 211 Grandview Drive #300 Fort Mitchell, Ky. 41017 Ralph A. Drees	653	165	270	1088
90	**Valencia Co.** 23823 Valencia Blvd. Valencia, Calif. 91355 Gary Cusumano	357	493	216	1066
91	**Evans Withycombe Inc.** 4455 E. Camelback Road Phoenix, Ariz. 85018 Stephen O. Evans	0	60	980	1040
92	**Weekley Homes Inc.** 1300 Post Oak Blvd. Houston, Texas 77056 David M. Weekley	1035	0	0	1035
93	**Shelter Contractors Inc.** P.O. Box 2324 Greenville, S.C. 29602 Richard S. McAdams	0	0	1018	1018
94	**H.C. Elliott Inc.** 11093 Sun Center Drive Rancho Cordova, Calif. 95670 Harry C. Elliott III	1001	0	0	1001
95	**Zaremba Development Co.** 14600 Detroit Road Lakewood, Ohio 44107 Alan F. Scott	0	0	1000	1000
96	**Nanticoke Homes Inc.** P.O. Box F Greenwood, Del. 19950 John Mervine Sr.	845	135	0	980
97	**Coscan Development Corp.** P.O. Box 428 Toronto, Canada M5X1H9 L. Ross Cullingworth	675	302	0	977[1]
98	**Shea Homes** 655 Brea Canyon Road Walnut, Calif. 91789 Roy Humphreys	740	218	0	958
99	**Mahaffey Co.** 3700 Pompano Drive S.E. St. Petersburg, Fla. 33705 Thomas, James & Mark Mahaffey	0	0	950	950
100	**Friendswood Development Co.** P.O. Box 2567 Houston, Texas 77252-2567 James Thompson	940	0	0	940

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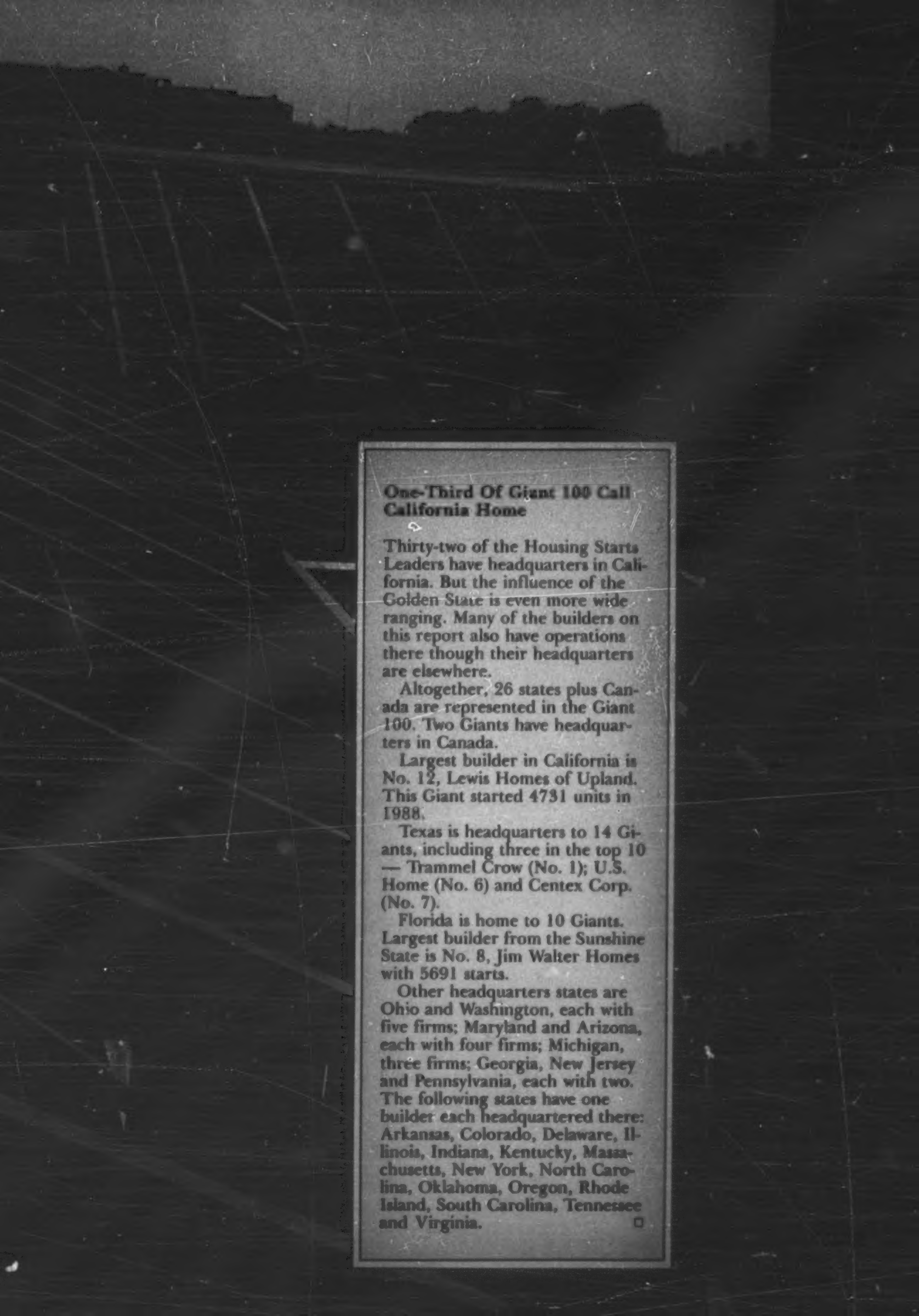
[1] U.S. starts only. Does not include 814 Canadian starts.



One-Third Of Giant 100 Call California Home

Thirty-two of the Housing Starts Leaders have headquarters in California. But the influence of the Golden State is even more wide ranging. Many of the builders on this report also have operations there though their headquarters are elsewhere.

Altogether, 26 states plus Canada are represented in the Giant 100. Two Giants have headquarters in Canada.

Largest builder in California is No. 12, Lewis Homes of Upland. This Giant started 4731 units in 1988.

Texas is headquarters to 14 Giants, including three in the top 10 — Trammel Crow (No. 1); U.S. Home (No. 6) and Centex Corp. (No. 7).

Florida is home to 10 Giants. Largest builder from the Sunshine State is No. 8, Jim Walter Homes with 5691 starts.

Other headquarters states are Ohio and Washington, each with five firms; Maryland and Arizona, each with four firms; Michigan, three firms; Georgia, New Jersey and Pennsylvania, each with two. The following states have one builder each headquartered there: Arkansas, Colorado, Delaware, Illinois, Indiana, Kentucky, Massachusetts, New York, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee and Virginia. □

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Professional Builder

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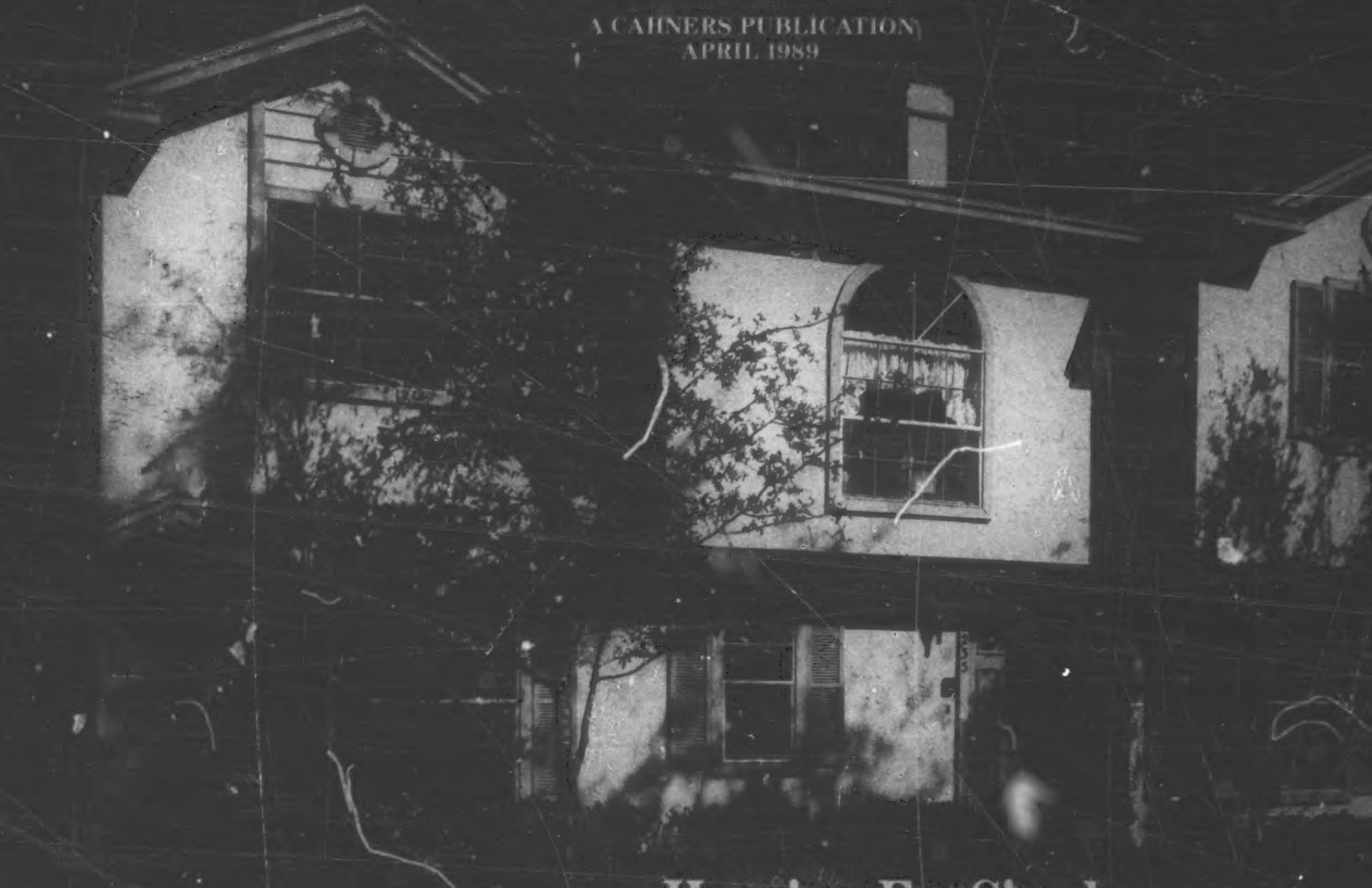
APRIL 1989



Housing For Singles

How To Meet Their Special Needs
Plus, Exclusive Survey Data

Training, Motivating The Sales Staff

Rehabbing An Ohio Brewery District

Checklist For Model Home Opening

Negotiating With Subs & Suppliers

Professional Builder

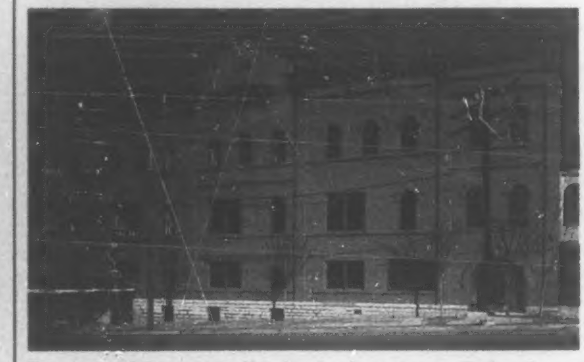
APRIL • 1989

VOL. 54

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

Three out of four buyers of the Fox Ridge condos in New York, above, were singles. Here's how to tap a growing market. Page 108.

Rich materials, such as this granite buffet, make a home look luxurious. A collection of luxury details begins on page 128.



Renovated brewery district in downtown Columbus, Ohio, includes rental housing, restaurants and commercial buildings. Page 149.

FEATURES

Beyond The Swinging Singles 108

Remember building apartments back in the 1960s for the swinging singles? Today, these renters have grown up, married and divorced. They are single again and they want to be homeowners. Other social factors—such as delaying marriage—are creating a bubble of young, affluent singles who desire home ownership.

What Do Singles Want In Housing? Exclusive Survey Results 120

Builders have to fine-tune their housing product if they expect to sell to singles. This special *Professional Builder* survey shows what singles want, what they need, what they can afford and how they differ from other home buyers.

Luxury Details 128

Why do your houses sell but down the street, the competition's languishes. Could be it's the details. Senior Editor Dan McLeister assembled a collection of details from luxury and production housing. These extra touches provide a mark of distinction.

Mid-Career Seminar: New-Home Sales Training 136

If your homes aren't selling, don't automatically blame your sales staff. Maybe you never taught them to sell. This special report outlines three critical steps in the process: selling prospects, selling product and closing the deal. Editors Bill Lurz and Eric Benderoff interviewed top sales people and trainers. Their advice is worth reading now—and again in six months. Sales training is a continual task—not a one-time shot.

Remodeling Project Of The Month 149

Twenty-five acres of downtown Columbus, Ohio, were ripe for renovation. Edwards Industries Inc. turned the site into an entertainment district complete with housing, restaurants, theaters and retail.

On The Cover

L.J. Hooker Homes hooked singles at its Fox Chase townhome community near Tampa Bay, Fla. Units range in size from 886 to 1297 square feet and sell from $49,000 to $60,000. Photo by Harvey Smith.

Professional Builder

THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

East meets West in search of the best. Page 52.

Competition for skilled labor is fierce. Builders' relationships with subcontractors will decide their fate in the coming years. Page 24. **Opening a model home** is a big undertaking. Here's a checklist to keep builders organized. Page 51. **An English country design** is a fresh look for Orlando, Fla. Page 60. **Formaldehyde** still ranks high on the list of indoor air pollutants. Page 73. **Tilt-up construction** is a flexible, convenient method of construction. Page 85. **Custom-home builder Jim Locke** has written a primer for consumers—and builders. A review, page 86.

Exterior products, including paving, siding, roofing. Page 166.

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Diversified builders will be around to see the 1990s.

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SURVEYING Singles

Photo: The Stock Market

As demonstrated on the previous pages, singles are, indeed, buying homes.

But builders have found they must fine-tune their housing products if they are to target the singles market successfully.

In the following eight-page report, *Professional Builder* presents exclusive survey data that shows what singles want, what they need, what they can afford and how they differ from other homebuyers—and indeed, how they differ even among themselves.

As part of its annual consumer survey (December 1988), PB tabulated separately the responses of 318 participants who are single. These people said they intended to purchase a home in the next six months.

Responses by singles were further defined by four lifestages: single parents with children younger than 18 years old; single parents younger than 50 but without children under age 18; single parents older than 50 without children under 18; and single, unrelated adults. These categories appear in many of the charts accompanying this report.

Selected responses are displayed on these and following pages. The answers reveal singles' special needs and differences in five areas: motivation, marketing, financing, housing design and products.

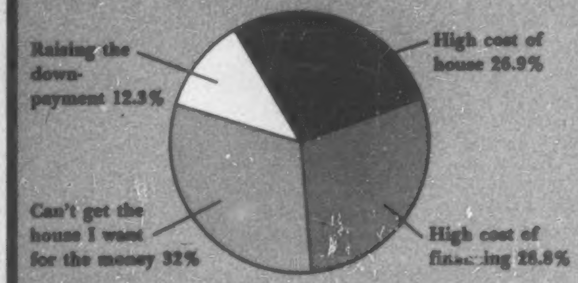
The complete PB consumer survey that includes statistical breakouts on single buyers is available for $320.

Send check or money order to *Professional Builder*, P.O. Box 5080, Des Plaines, Ill., 60017-5080. □

Availability, High Costs Are The 2 Greatest Obstacles In Buying A Home

In contemplating a home purchase, many single buyers are turned off by what housing is available for the money. Downpayment isn't as much of a concern as monthly costs.

Greatest single obstacle in purchasing a home



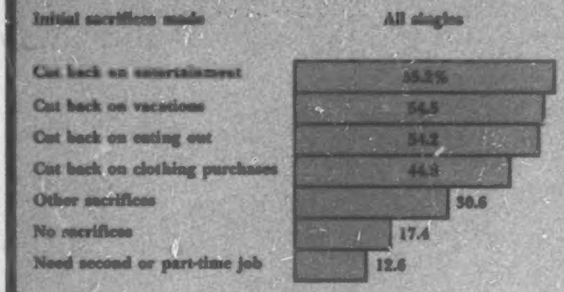
How Much Can Singles Afford In Downpayment, Price And Monthly Payment?

By and large, not as much as non-single buyers. On average non-singles could afford a $37,043 downpayment, average price of $125,468, and a monthly payment of $815. For singles, amounts are shown below.

	Single, w/children	Single, less than 50	Single, older than 50	Single, unrelated adults
Average downpayment	$16,903	$ 23,902	$ 37,881	$ 32,166
Average price	75,901	113,207	106,477	150,218
Maximum monthly payment	506	786	617	850

More Than 50% Of Single Buyers Are Willing To Sacrifice Extras For A House

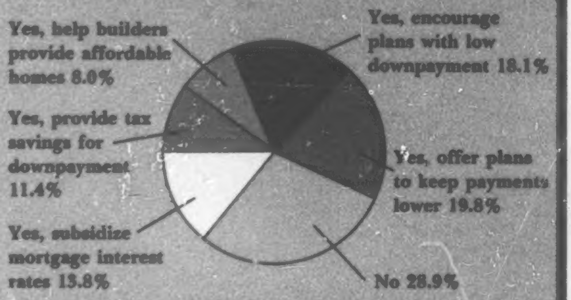
More than 70% of single parents with kids would sacrifice entertainment, 62.2% of parents of older kids cut back on vacations, but 37.5% of those over 50 claim no sacrifices.



Many Single Buyers Want Government Help For Lower Payments And Low Downpayment

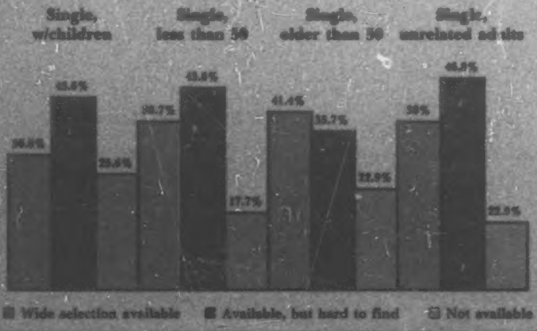
Among single buyers, 44.1% of single parents with young children want plans for lower payments. Almost 30% of single, unrelated adults want low downpayment plans.

Should government provide help for first-time buyers?



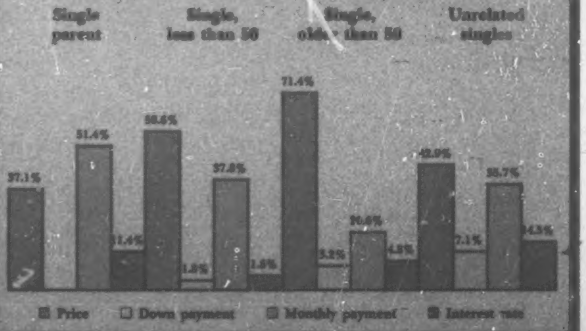
Singles Have To Look Hard To Find Affordable Housing

With the exception of older singles, most singles have a hard time finding available affordable housing. Even marrieds (48.8%) say that it is hard to find.



The Pricetag On A New House Plays A Critical Role In The Buying Decision

For most singles, the price of the house is an important influence in the buying decision. Single parents with young children are mostly concerned with monthly payments.



SINGLES

Singles See Attached Housing As Route To Home Ownership

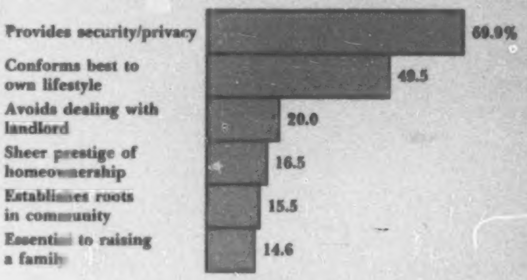
Singles are more attracted to attached housing due to less home maintenance and as the best way to buy their first home, compared to married buyers.

Reason for buying an attached home	Singles	Married
Less maintenance	66.1%	59.8%
Recreational facilities	38.6	38.6
Best way to buy first home	27.5	19.6
Offers a sense of neighborhood	27.0	27.0
Only housing available	24.0	24.0
More house for the money	20.5	20.5
Only housing that's affordable	18.7	18.7
Increased prestige	6.4	3.8
Prefer the cluster lifestyle	4.1	4.1

Security And Privacy Motivate Singles In The Buying Decision

The need for security and privacy are influential factors in buying a home for 70% of singles, compared to 60% for married buyers.

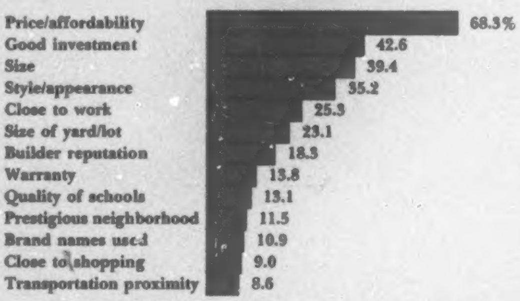
Lifestyle factors influencing buying decision



Affordability, Investment Value And Size Influence Selection Of A New Home

For singles, proximity to work, style, appearance, prestigious location and good investment value are the more important factors, compared to married couples.

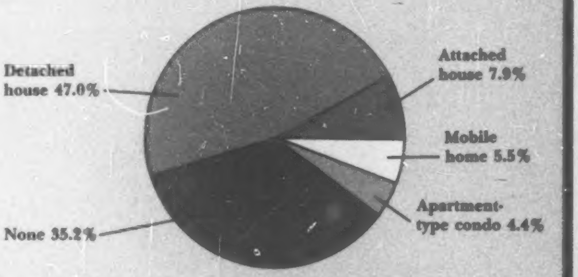
Factors (singles)



Almost 50% Of Single Buyers Have Visited A Detached Model Home

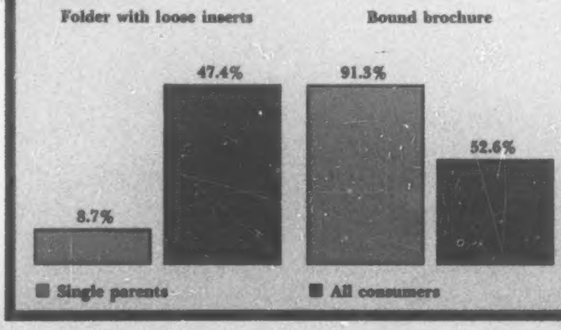
Single buyers are interested in single-family detached housing. Singles may be attracted to the conveniences of attached housing, but very few visited attached models.

Types of models visited within 6 months



Marketing To Single Parents? Bind The Brochure

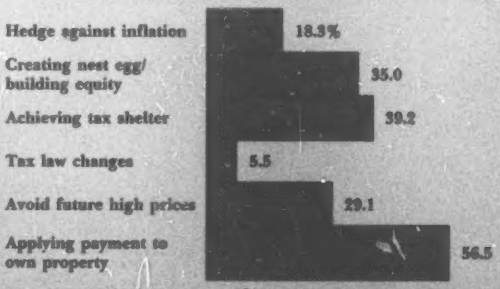
Make home shopping easier for parents by providing a bound brochure. Among singles without children and among consumers overall, buyers are split over what type of brochure they prefer.



Home Ownership, Tax Shelter Are The Two Most Important Financial Factors

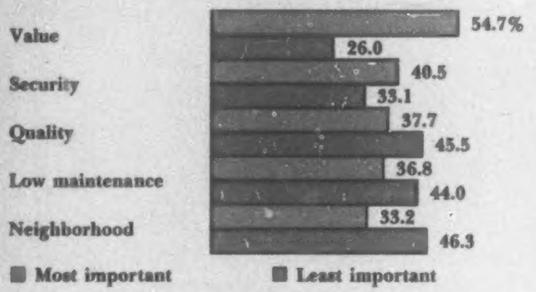
Paying off a mortgage rather than spending money on rent was the most motivating financial factor among all single buyer types. Finding relief from taxes is important too.

Financial factors influencing decision



Singles Are Looking For Value And Security In Their Next Home

Security was cited by 57.2% of parents of young children and 50% of older singles. Value was cited by 73.6% of single adults. Bars show responses from all singles.



In The Rent Versus Buy Decision, Ownership Wins Hands Down

Reasons for home ownership depend upon lifestyle. Unrelated adults living together, for example, buy for investment reasons.

Reason	Single parent	Single, less than 50	Single, older than 50	Unrelated adults
Want to own, not rent	87.2%	78.6%	91.3%	81.3%
Own for investment value	61.5	84.9	55.1	90.0
Own for tax reasons	51.3	69.1	52.2	72.5
Not dependent on landlord	43.6	36.5	37.7	30.0
Settle down/have roots	41.0	33.3	20.3	35.0
Worry about increased rents	30.8	12.7	17.4	10.0
House prices increasing	28.2	47.6	21.7	40.0
Found attractive house	23.1	26.2	23.2	32.5
Found affordable mortgage	18.0	12.7	15.9	17.5

Affordable Monthly Payments Motivate Singles To Buy A New Home Now

Singles, especially single parents, are concerned about making payments on their own. Affordable monthly payments encourage them to buy.

Reason	Single parent	Single, less than 50	Single, older than 50	Unrelated adults
Affordable monthly payments	92.1%	58.8%	43.5%	63.3%
Decreased mortgage rates	63.2	53.8	42.0	64.6
Less-costly homes available	55.3	36.1	33.3	22.8
Inherit small fortune	50.0	36.1	18.8	36.7
Tax reform	29.0	26.9	20.3	25.3
Guaranteed quality	21.1	20.2	33.3	29.1
Drastic lifestyle changes	18.4	20.2	40.6	16.5

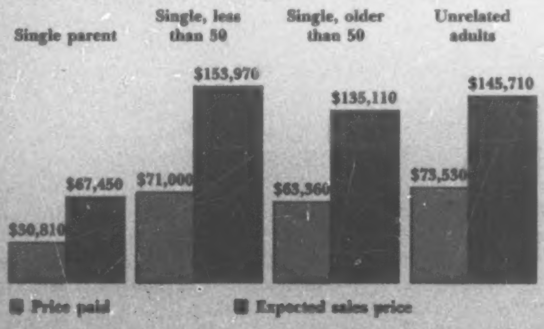
New Home Purchases Are Often Sparked By The Desire For One's First Home

With the exception of older singles, the majority of singles are buying a home for the first time, compared to only 25% of buyers who are not single.

Motivation	Single parent	Single, less than 50	Single, older than 50	Unrelated adults
Buying home for first time	52.6%	43.8%	4.8%	46.8%
Moving up again/more space	15.8	21.5	14.3	13.0
Moving up from first home	10.5	12.4	4.8	11.7
Job or marital changes	7.9	12.4	9.5	16.9
Kids gone/need smaller home	7.9	5.8	22.2	3.9
Buying home for retirement	5.3	4.1	44.4	7.8

Single Buyers Expect Significant Gains When Selling Present House

Single homeowners anticipate substantial increases in value when they sell. Married buyers paid an average $75,620 for their home and expect to sell it for $129,460.



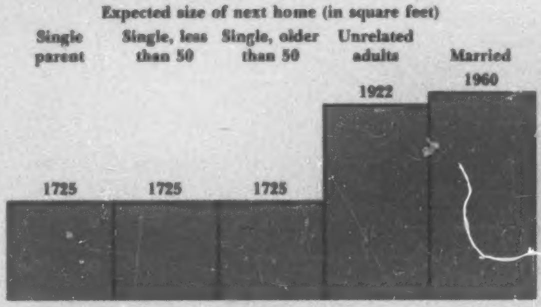
Singles Search For Homes In Newspaper Ads And With Real Estate Brokers

Single buyers rely on newspaper or classified ads and on real estate brokers more than any other sources. Referrals from friends influence a significant percentage.

Sources	Single parent	Single, less than 50	Single, older than 50	Unrelated adults
Newspaper/classified ads	71.1%	61.5%	44.1%	60.0%
Real estate broker	50.0	68.9	70.6	75.0
Billboards/for-sale signs	29.0	21.3	16.2	26.3
Advice from friends	29.0	21.3	35.3	13.8
Parade of homes	13.2	12.3	11.8	12.5
Radio, TV, direct mail	5.3	5.7	11.8	12.6

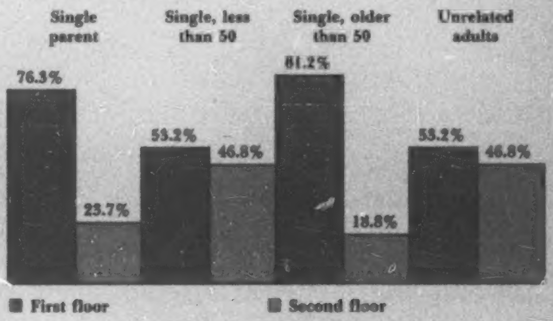
Singles Buyers Expect To Buy A New Home With 1725 Square Feet

Most singles expect their next home to be 1725 square feet. Single adults expect a larger home. Married buyers want an average of 1960 square feet.



Locate The Master Bedroom On The First Floor, Most Singles Say

The majority of single buyers prefer first-floor master bedrooms, particularly single parents with young children and older singles.



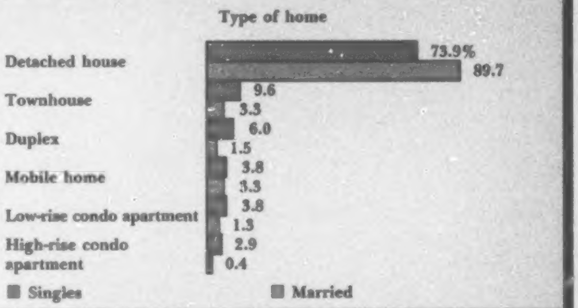
Singles Want Functional Housing That Lives With Style

Singles rated the following design elements on a basis of desirability in their price and size range. Singles prefer home entertainment centers, full-time office space and interior lofts more than other buyers.

Design element	Most desirable	Least desirable
Linen closet	83.1%	5.7%
Garage storage space	76.9	9.8
Pantry	75.1	11.3
Patio	73.4	10.4
Two closets in master suite	66.7	15.1
Family entertainment space	66.0	9.8
Multipurpose room	64.8	10.4
Porch	63.8	16.7
Covered entries	63.3	17.3
Oversized master bath	52.5	24.6
Part-time home office/ hobby room	44.9	27.7
Home entertainment center	44.6	33.4
Built-in furniture	43.4	33.1
Cathedral vaulted-type ceilings	42.5	36.7
Raised flat ceilings	40.9	24.5
Sun room or greenhouse	38.6	40.7
Formal entertaining space	37.8	31.4
Space for full-time home office	37.1	39.8
Garden bathroom	27.6	51.5
Interior lofts and balconies	27.1	49.3
Dramatic window treatments	26.0	42.8
Home fitness center	24.7	51.9
Private living space for individual	24.6	62.3
Interior plant shelves/niches	23.7	47.4

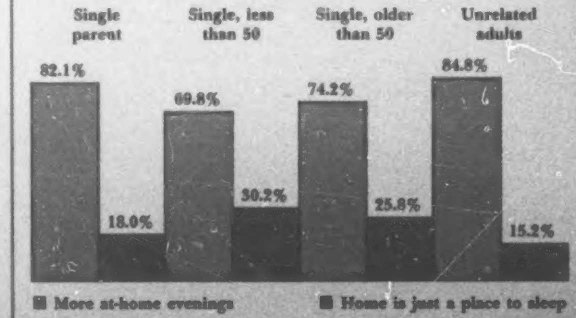
Singles Overwhelmingly Want A Single-Family Detached Home

Like the majority of other buyers, singles prefer to own a single-family detached house; 15% of older singles and 10% of parents without children at home would prefer buying a townhome.



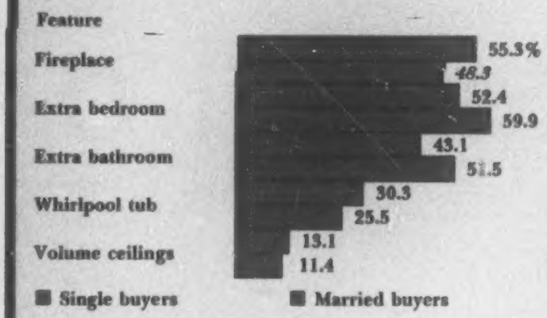
They Shed The Image Of The 'Swinging Single' By Preferring To Stay At Home

In designing for single buyers, builders should note that, surprisingly, singles are spending time and entertaining at home. Designs need to respond.



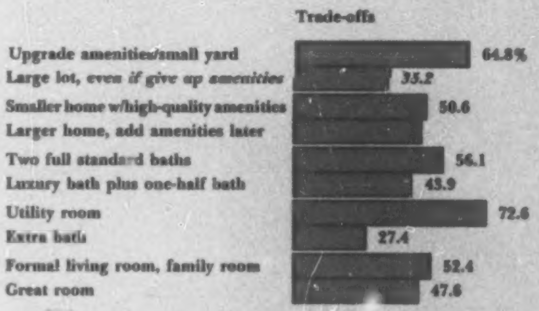
Single Buyers Would Choose Glamour And More Room

If singles could choose only 2 of the following features, more than 50% would select a fireplace and an extra bedroom.



When Trade-Offs Are Necessary, Most Singles Want Amenities, Not Size

Singles prefer high-quality space with upgraded features in a smaller home. But marrieds would take a larger house and add glamour later.



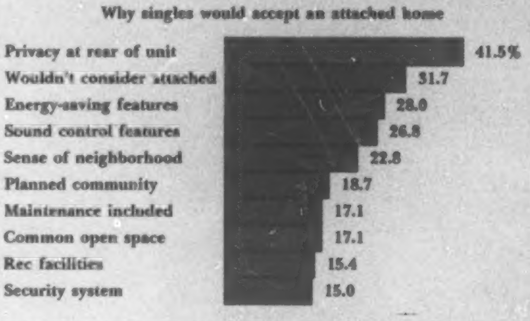
Architectural Preferences Vary Among Demographic Submarkets

Single parents with young children and older singles prefer traditional architecture. Older singles and unrelated adults prefer contemporary.

Style	Single parent	Single, less than 50	Single, older than 50	Unrelated adults
Traditional	36.1%	28.7%	39.7%	25.0%
Contemporary	30.6	36.1	30.9	41.3
Colonial	11.1	11.5	16.2	8.8
Spanish	8.3	6.6	0.0	5.0
Victorian	5.6	4.9	5.9	7.5
Tudor	5.6	5.7	2.9	2.5
Other	2.8	6.6	4.4	10.0

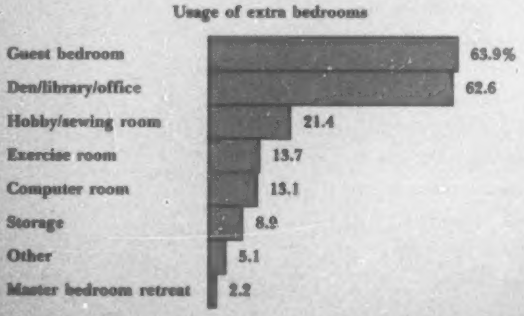
Privacy Is A Key Factor In Making Singles Interested In Attached Housing

More than 65% of singles would consider buying an attached home, compared to only 43.7% of married buyers. But singles want privacy.



Extra Bedrooms Add Needed Space For Guests Or Personal Activities

In merchandising secondary bedrooms, builders should target what singles are looking for. Compared to 48.7% of married buyers, 62.6% of singles want a den.



Survey Highlights

- ✓ More than 50% of all singles prefer a brick exterior on their new home.
- ✓ The majority of singles in all lifestages prefer 2 bathrooms and want 3 bedrooms in the next house they purchase.
- ✓ More than 50% of all singles seek a commute to work less than 30 minutes. Almost 66% of older singles would travel no more than 30 minutes. Close-in suburbs are the preferred location for most.
- ✓ If singles could design their own homes, they would enlarge the family room, meal preparation area, closets in the master suite, and add a home office or hobby room.
- ✓ About 50% of all single buyers want a formal dining room and 44.9% want to have room for a table in the kitchen for informal meals.

Singles Want Easy Maintenance, Storage And Convenience In Kitchens And Baths

They are more apt to want a medicine cabinet, single-bowl vanity and tile walls in the bath. In the kitchen, more singles want a refrigerator included.

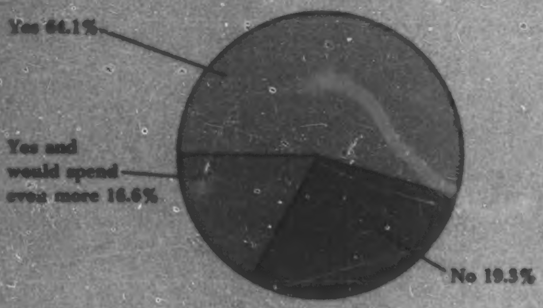
Bathroom features	
Medicine cabinet	92.1%
Exhaust fan	83.2
Linen storage cabinet	77.5
Tub/shower door	66.7
Ceramic tile floors	56.8
Ceramic tile walls	54.9
Vanity with 1 bowl	52.1
Safety features	40.9
Bathroom heater	39.4
Colored fixtures	31.4
Vanity with 2 bowls	30.5
White fixtures	27.6
Dressing area	24.4
Ceramic tile vanities	21.3
Mirrored wall	20.9
Skylight	14.9
Compartmentalized bath	14.3
Whirlpool	11.7
Bidet	4.4
Sauna	3.8

Kitchen features	
Range/oven	87.6%
Dishwasher	77.8
Refrigerator	67.6
Vinyl floor covering	67.0
Self-cleaning oven	65.4
Garbage disposal	62.8
Pantry	62.2
Stainless steel sink	59.7
2 sinks	55.2
Single-handle faucet	51.1
Fluorescent ceiling lighting	47.6
Laminated plastic countertop	43.8
Microwave oven	39.4
2-handle faucet	38.1
Ceramic tile countertop	32.7
Enamel/porcelain sink	30.1
Ceramic tile floors	22.8
Trash compactor	20.9
Ceramic tile walls	13.3
Carpeted floor	7.3

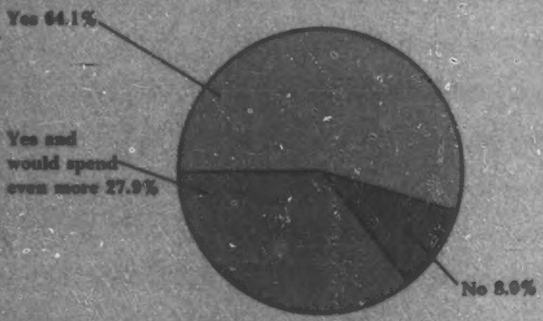
Single Buyers Will Pay More Now To Save Later On Maintenance And Energy Costs

Most singles would spend at least $1000 extra on low-maintenance materials to save $200 annually. And most would spend an extra $500 to save $100 yearly on energy costs.

Low-maintenance features



Energy-saving features



Survey Highlights

- About 65% of singles would be encouraged to visit model homes if a pricing discount were offered on the homes.
- The most important elements in a real estate advertisement are: price of house, floor plan, photo of house and description of the model.
- In all, 44.5% of singles say their present home is too small, 30.4% dislike the location and 27.9% state that job or family needs have changed, motivating them to buy a new home.
- Among single parents with young children, 55.5% say that interior merchandising helps them visualize living in a house. About 65% of single adults say that unfurnished or partially furnished models are sufficient.
- An open floor plan and the kitchen are most likely to influence their impression of the entire house.
- Of those singles who previously lived in single-family detached houses, at least 65% owned their home, rather than rented. Of those who lived in attached units, older singles tended to own the units. Most other singles rented attached housing.
- Among older singles, 46.5% said they would be willing to pay a monthly fee for yard maintenance and almost 65% would pay or would consider paying a monthly fee for exterior home care.

Security And Energy Management Are Most Desired Intelligent-House Features

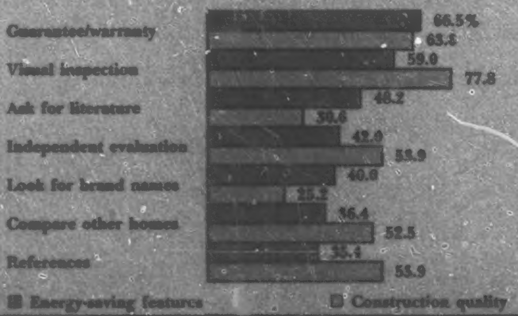
Singles are interested in features that make their next homes safer and more efficient. And they are more apt to want intelligent features than marrieds.

'Intelligent house' features	Want	Price range
Security/safety	73.7%	$914-$1253
Energy management	71.9	892-1200
Entertainment	56.3	716-1073
Communications	43.1	405-919
Service/data	21.2	371-610

Most Singles Want Builder Credibility Claims In Writing

In regards to energy-saving features and construction quality, singles mostly rely on guarantees and visual inspection to assure a builder's claims.

Determining claims



The One Way To Success In The '90s: Diversify Your Activities

By David E. Link
Vice President,
Publisher

There is no doubt about it—diversification will be THE spice that provides full flavored success for builders as the final decade of the 20th century unfolds.

The latest report of the building activities of the 125,000 builder-readers of this magazine shows the strength of this diversification trend.

As the chart shows, the level of diversification has increased dramatically since 1970.

In 1970, builders said they were involved in 1.1 types of building activity. In effect 20 years ago, most builders specialized in one type of building activity—be it single-family housing, custom housing, multifamily housing, nonresidential, manufactured housing or remodeling.

By 1980, the rate of diversification had nearly doubled to 2.0 types of activity, then to 2.4 in 1985. And at the end of 1988 it stood at 2.72. And there is every indication that the rate of diversification will continue to climb in the 1990s.

Single-family home building remains the single largest area of activity by builders. About 94,000—about 3 out of 4 of PB's active builders—said they were active or planned activity in single-family construction at the end of 1988.

Of these 94,000 builders, 6500 said they build single-family housing only. But nearly 57,000—or about 60 percent—said they were involved in some type of major remodeling. And nearly 50,000—or about 40 percent—reported activity in custom houses costing $250,000 or more. About 25,000 said they were also involved in either multifamily housing or nonresidential construction.

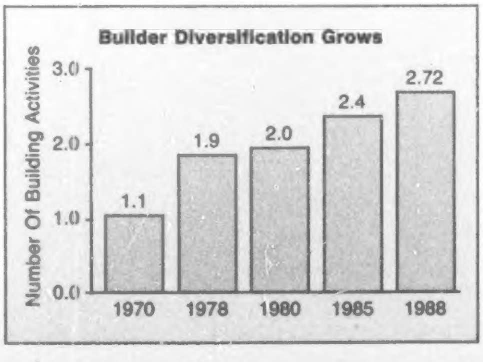
Overall, builders of single-family houses said they were involved in an average of four types of building activity. Obviously, single-family home builders today are not stuck in a rut. They are willing to go where there is an opportunity to make a profit.

So are the builders involved in multifamily housing. They also reported a diversification rate of four types of activity. Among the 52,000 builders reporting multifamily activity, some 25,000—or about 48 percent—were also involved in single-family construction. A close second, with 42 percent activity, was major remodeling. Custom housing ranked third at 37 percent. Only 6 percent said they were involved exclusively in multifamily construction.

Of the 57,000 builders reporting activity in custom housing costing more than $250,000, virtually none told us they were involved exclusively in that type of activity. These builders undertake 3.2 activities. Some 88 percent also build lower-priced single-family housing. A sizeable 70 percent were involved in major remodeling. And one out of three were also involved in multifamily or non-residential construction.

The diversification among nonres builders was reported at a rate of 3.5 types of activity. Among remodelers, the rate was 2.9. And home manufacturers, as might be expected, reported the lowest rate of diversification—two.

In short, the figures tell the story. Diversified building activity is, and promises to be, the way of business for today's successful builders. □



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MID-APRIL 1989

KITCHEN & BATH

REMODELING

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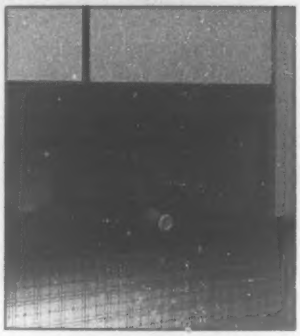

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My Favorite Room Addition yields new kitchen and master bath. Page 28.
Kitchen and bath design ideas from builder's new model homes. Page 37.
Virginia remodeler converts two half baths into two full baths. Page 48.
How kitchen islands solve design problems. Page 53.
Good customer relations reduce the anxiety of remodeling. Page 61.

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Carving Out New Kitchens And Baths/66

Rearranging space by moving walls or adding square footage gives remodelers room to work. Sometimes they build a room addition to accommodate homeowners' needs. Other times they rearrange existing interior space to make it more functional.

Details Make The Difference/84

Specially designed lighting, built-in storage cabinets, appliances and high-end finish materials make kitchens and baths stand out. It's the details that change the run-of-the-mill to the out-of-the-ordinary.

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Northeast, Midwest, Pacific States Are Active

Remodeling expenditures will rise slightly this year. But hold on for 1990. Spending should jump 11.5 percent.

Though the numbers look impressive—residential remodeling expenditures of $102.6 billion this year—in fact, they represent an anemic 0.7 percent increase over 1988.

Last year, spending surged 8.7 percent. The reason for slow growth this year? Higher interest rates. But don't despair. Expenditures are expected to accelerate 11.5 percent in 1990.

To date, however, remodeling activity remains strong in most areas of the country, especially in the Northeast, Midwest and the Pacific states. Only the Mountain region has seen a significant decline in market activity.

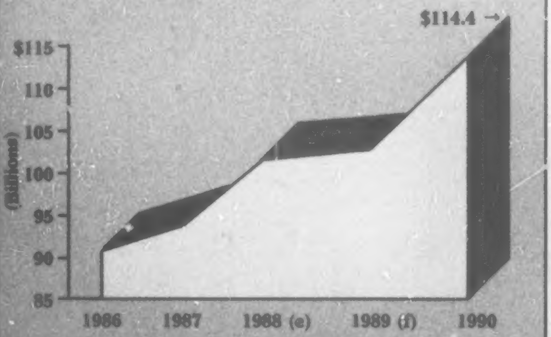
As in the past, rising interest rates and slower income growth will lead consumers to take a greater share of remodeling work into their own hands. The do-it-yourself market is expected to expand faster than professional contracting this year. By 1990, however, the turnaround in home building and remodeling will boost payments to professionals by 13 percent.

About 42 percent of homeowners use their home equity loans for home improvements, according to the University of Michigan. Home equity debt outstanding has grown by nearly 30 percent in the past year. In the Northeast, 13 percent of all households have home equity lines of credit, three times the average for homeowners elsewhere.

Tight supplies sent raw material prices skyrocketing last year, and most building material prices will accelerate in 1989. Plumbing fixtures are the exception: Prices jumped 7.5 percent in 1988, but weak demand in the housing and commercial markets this year will slow their rise. ☐

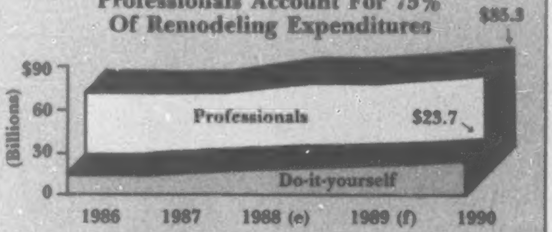
By Lisa A. Gilmore, Cahners Economics, Newton, Mass.

Residential Remodeling Expenditures Reach $102.6 Billion In 1989



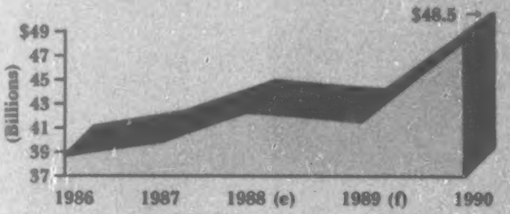
Source: Department of Commerce. Forecast: Cahners Economics. e= estimate; f= forecast (begins 1989).

Professionals Account For 75% Of Remodeling Expenditures



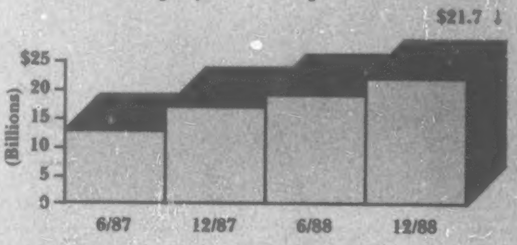
Source: Department of Commerce. Forecast: Cahners Economics. e = estimate; f = forecast (begins 1989).

$41.7 Billion In Additions, Alterations



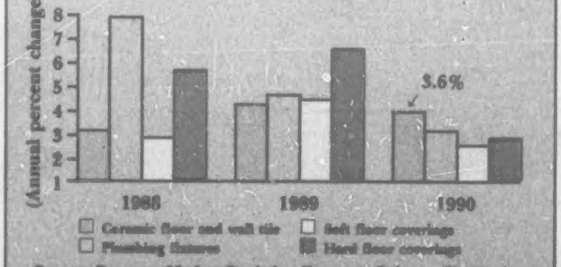
Source: Department of Commerce. Forecast: Cahners Economics. e = estimate; f = forecast (begins 1989).

Home-Equity Loans Up 29% In Year



Source: Federal Reserve Board, survey of outstanding home-equity loans at 168 large commercial banks.

Floor And Wall Tile Prices Lead In 1988



Source: Bureau of Labor Statistics. Forcast: Cahners Economics. e = estimate; f = forecast (begins 1989).

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20 Years After Operation Breakthrough:

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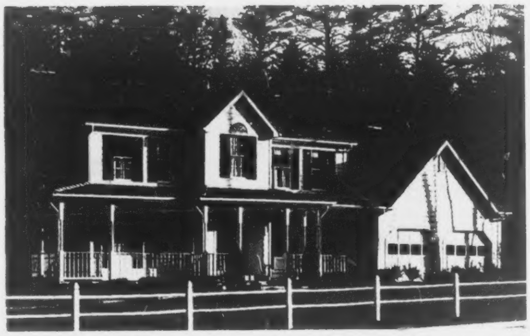
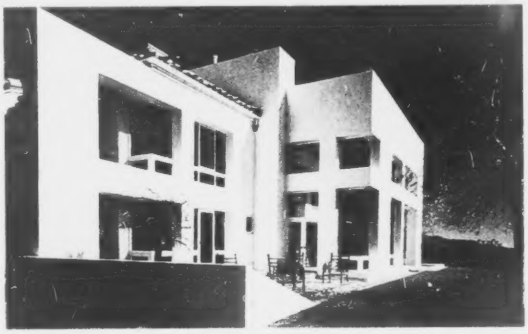
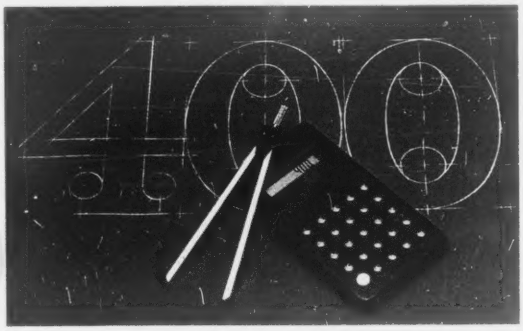


Factory-built housing: PB takes a historical look at 20 years after the inception of Operation Breakthrough, page 104.



This home used to be a rustic mountain cabin. For details, see Remodeling Project Of The Month beginning on page 235.



Trammell Crow is No. 1 this year. For an in-depth look at the nation's top builders, see the 22nd ANNUAL REPORT OF HOUSING'S GIANTS, page 130.

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20 Years After Operation Breakthrough 104

Building homes in factories was supposed to revolutionize the shelter industry. With former auto executive George Romney at the helm of the Department of Housing and Urban Development, assembly-line workers would crank out the houses. That was the dream. The reality is that changes in factory-built housing have been evolutionary, not revolutionary.

How Builders Pay Their Staffs 120

Last year, base salaries in the building industry increased 5 to 6 percent. What paymasters have to watch, though, are employee benefit plans. Section 89 of the Tax Reform Act of 1986 set down strict guidelines that took effect this year.

Advice From The Giants 124

How does a builder get from here to the end of the year? *Professional Builder* asked the Giant 400 questions that a small builder might ask. The Giants responses—by no means unanimous—suggest how to tighten management controls, motivate employees, work with subs and suppliers and price new homes.

The Giant 400 130

In 1988, the Giant 400 builders earned more of their revenues from the sale of single-family houses. Apartment construction continued its slide. *Professional Builder*'s 22nd ANNUAL REPORT OF HOUSING'S GIANTS, the Giant 400 turned out 496,177 new houses, apartments and mobile homes in 1988. A detailed look at what, how and where they built, including:

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☐ Rank by for-sale and rental units, page 140
☐ Listing by headquarters states, page 142
☐ Rank by total revenues, page 144
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Remodeling Project Of The Month 235

Arrow Construction transformed a rustic mountain cabin into a contemporary, practical retreat that meets all of the homeowner's requirements. The $850,000 remodeling includes a 630-square-foot master suite addition.

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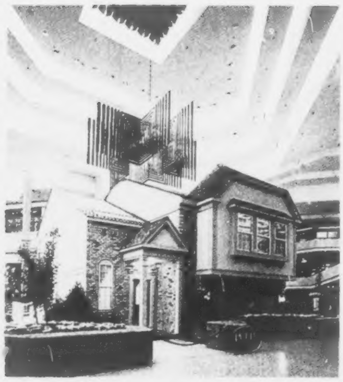
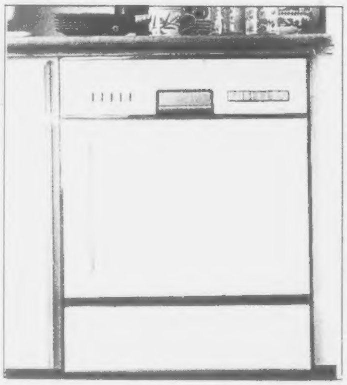


Pulte Master Builder sells homes from a mall in Illinois. Page 47.

Housing forecast at midyear holds out the promise of good times to come—for the next six months and next year. Interest rates are coming down and single-family starts should increase. Page 22. **A tribute** to Hall of Famer and editor Joe Mason. Page 28. **Shopping malls provide builders** another venue for home sales. Page 47. **Changes in the home automation** field mean a difference in home wiring. Page 63. **Polybutylene pipe** has its backers. Page 68. **Home building Giant NVR L.P.** aims to sell house packages to small builders. Page 70. **What's behind the popularity** of cordless power tools. Page 74.



Kitchen products, including appliances, plumbing. Page 240.

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Housing At Midyear: The Curve Turns Back Up

Mortgage rates have come down to give single-family construction a small boost.

The best news for the housing industry is that the worst is over. Despite the rise in mortgage rates through the first half of the year, housing starts are expected to total 1.46 million units by year-end. That is a modest 2 percent decline from 1988 levels. By 1990, starts should resume their growth, rising 3.7 percent to 1.51 million units.

For the economy as a whole, growth accelerated from a 2.4 percent annualized rate (inflation adjusted) in the fourth quarter of 1988 to a 5.5 percent pace in the first quarter of this year.

With mounting evidence of a slowdown in the industrial sector, however, the economy cannot sustain this rate of growth. The economy is expected to expand by just 2.2 percent in 1989, compared to its 3.8 percent pace last year. This cooling period will provide a breather for the economy—not a full-fledged recession—and will pave the way for stronger growth in the early 1990s.

Weaker economic growth will allow mortgage rates to edge back downward after mid-year, giving a small boost to single-family construction. Starts are expected to hold near 1988 levels this year, rising just 0.2 percent to 1.08 million units.

It is more bad news for apartment builders, though. With the national rental vacancy rate remaining at a 20-year high 7.7 percent last year, however, multifamily housing will continue to slide. After dropping by 24.3 percent in 1987 and 14.2 percent in 1988, starts are expected to fall by another 7.7 percent this year to 375,000 units—matching their 1981 recession low.

Despite the slump in home building, the trend toward larger homes with more amenities continued unabated last year. The average size of a new single-family home increased for the sixth consecutive year —up 4.7 percent to 1995 square feet. Also, a larger percentage of units completed in 1988 had central air conditioning, 2½ bathrooms or more, four bedrooms or more, and at least one fireplace.

These gains took place despite the slightly smaller share of trade-up buyers in the housing market and another falloff in the overall home ownership rate.

Although higher interest rates will make it harder for home buyers to afford the space, amenities, and design features they want this year, consumers will continue to demand high quality homes. According *PB*'s 1989 Consumer Survey, when prospective home buyers are given a choice of features, the most popular are an extra bathroom, an extra bedroom, and a fireplace.

Demographics will accelerate this trend, as the baby-boom generation moves into its higher-income years. These households will strengthen the demand for upscale housing in the years to come.

Regional report

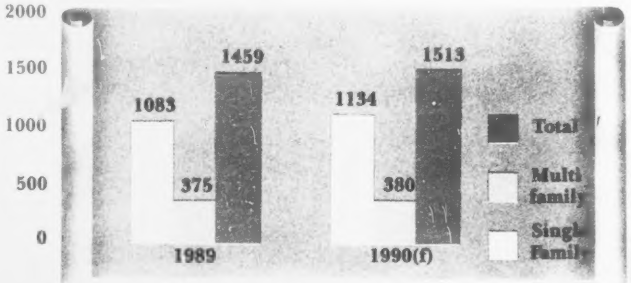
Benefiting from the resurgence in exports, the West and Midwest are expected to see the fastest rates of construction growth this year and next. California, with its rapidly expanding population, will account for half of the 10 largest markets for new residential construction.

In the Northeast, rapid home price inflation has pushed starts down by an average 9.9 percent per year over the past two years. Another slowdown in 1989 should help bring prices back in line with demand, setting the stage for a solid recovery in 1990.

After declining by an average 9.3 percent per year over the past five years, housing starts in the South will remain sluggish. When adjusted for market size, however, the South continues to be one of the fastest-growing areas for new

Housing Starts: Wait Until Next Year

(Thousands of units)



Forecast: Cahners Economics

This midyear outlook was prepared and written by Lisa Gilmore of Cahners Economics, Newton, Mass., the forecasting arm of Cahners Publishing, parent of Professional Builder *magazine.*

housing. In 1988, this region started about 2.1 housing units for every 100 new households, compared to just 1.4 starts per 100 households in the Northeast and Midwest.

Nonetheless, the West now dominates the growth in new housing, reflecting rapid employment gains. The ratio of starts per 100 households totalled 2.3 in 1988, surpassing activity in the South.

Remodeling regains momentum

With slower economic growth and higher interest rates, residential remodeling will slow to a crawl this year before resuming strong growth in 1990. Even with the rise in materials, labor, and overhead costs, spending is expected to increase just 0.7 percent in 1989 to $102.6 billion.

Higher interest rates will also lead consumers to take a greater share of remodeling work into their own hands. With lower interest rates in 1990, however, payments to professionals—including materials, labor, and overhead (over 75 percent of total spending)—will again exceed the growth in total remodeling, rising by 13 percent compared to 11.5 percent growth overall.

Non-res construction falters

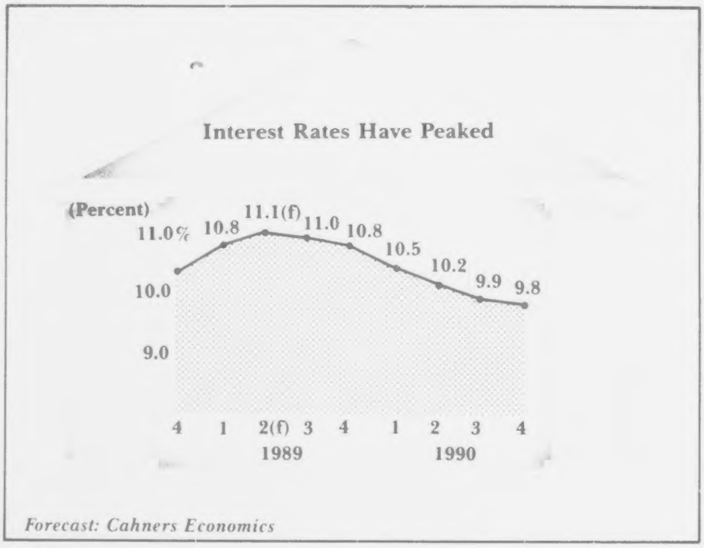
Non-residential construction provided a growing market for builders last year. Spending accelerated to a 2.7 percent increase—a 1 percent real gain after adjusting for inflation. The prognosis for the next two years is less rosy, however. With the persistently high level of excess commercial space, new construction will see modest growth this year and next.

Spurred by the housing boom, retail building expanded by an average 20 percent per year between 1983 and 1986. Retail construction has also been hit by housing's slowdown, however. Spending fell by 2.9 percent in 1988 and should slide again this year.

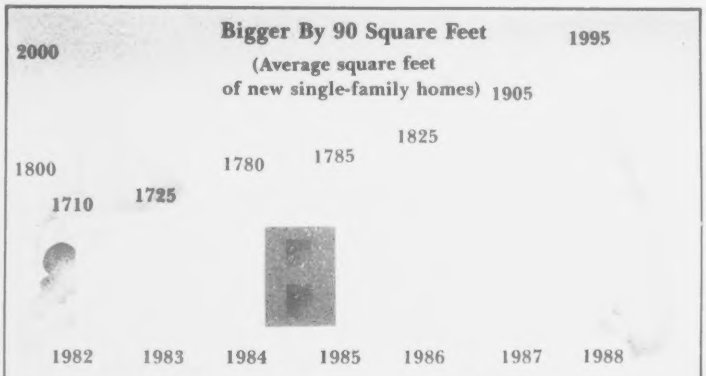
On the other hand, office building enjoyed a brief respite from its slump last year. After a sharp downturn in 1986-87, spending rebounded 3.8 percent. With an esti-

Continued on page 24

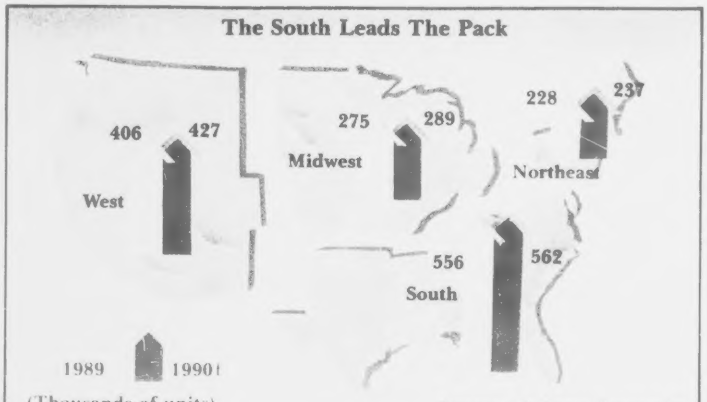
Illustrations: Holly Vancelos



Forecast: Cahners Economics



Data source: U.S. Department of Commerce



Forecast: Cahners Economics

Check out non-res rehab

Continued from page 23

mated six-year supply of available space and competition from well-maintained older buildings, however, offices will resume their downturn in 1989.

After a decade of strong growth, hotels and motels are now in critical oversupply. After plunging 10.6 percent last year, spending is expected to remain sluggish this year and next.

Export markets boosted industrial production in 1988, but most of the increase in business investment went for equipment purchases rather than for new construction. Although industrial building has emerged from its decade-long slump, years of corporate restructuring and investment in labor-saving equipment will limit spending growth relative to previous expansions.

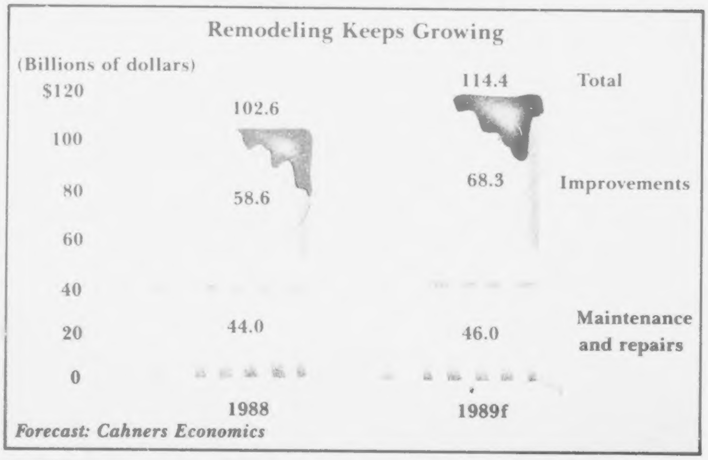
Because public building accounts for a majority of institutional construction spending, this market will feel the pinch of government budget restrictions. Growth is projected to slow from an average 8 percent per year since 1983, to 4.7 percent annually this year and next.

Look into non-res reconstruction

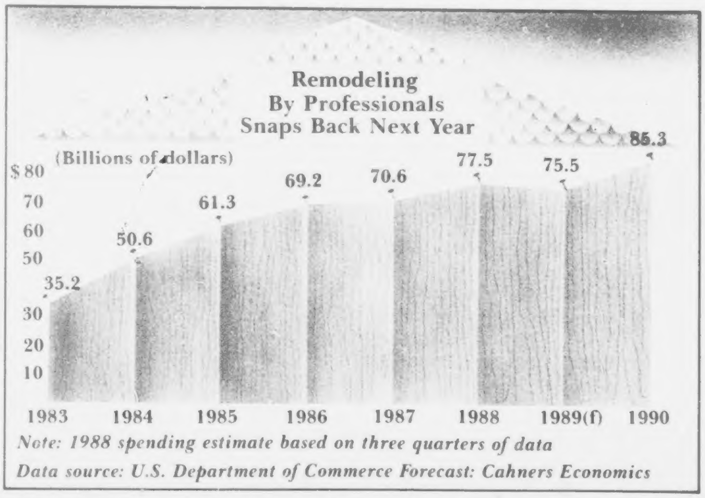
Non-residential reconstruction is an even bigger market than new construction, according to the first-ever comprehensive study of reconstruction. The study, conducted by the U.S. Commerce Department in conjunction with the 1986 Department of Energy survey, estimates that expenditures on non-residential improvements and upkeep totalled $78 billion in the survey year, compared to $70 billion spent on new construction.

As it has since the beginning of the decade, reconstruction will continue to outpace new construction. By the end of 1989, expect reconstruction to reach $95.9 billion—a 23 percent increase over 1986 levels.

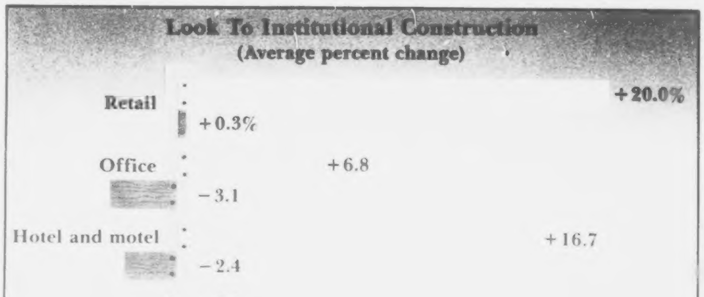
All regions except the South, where reconstruction activity has been sluggish, should see somewhat slower growth before activity picks up again in 1990. Growth will continue to be strongest in the Northeast and Midwest. □


Remodeling Keeps Growing

Forecast: Cahners Economics


Remodeling By Professionals Snaps Back Next Year

Note: 1988 spending estimate based on three quarters of data
Data source: U.S. Department of Commerce Forecast: Cahners Economics


Look To Institutional Construction
(Average percent change)

Data source: U.S. Department of Commerce Forecast: Cahners Economics

TECHNOLOGY

Major Technical Step Taken In Home Automation

It's a dynamic industry. Home automation companies are moving ahead with products that offer safety and convenience.

By Dan McLeister, Senior Editor

The home automation industry has taken a major technical step toward the age of home automation. It could affect the way builders wire homes this year.

But more progress needs to be made on marketing to consumers and builders. That is because "today's home automation businesses are effectively selling unfamiliar products to poorly informed buyers in an undefined market," said Mike Coffey, president of the Home Automation Association. However, the industry has tremendous growth potential, he added.

Japanese firms will play a significant role, according to EGIS, a marketing consulting firm with offices in Seattle, Paris and Tokyo.

Some companies—large and small—pulled out of the market or went out of business before the home automation industry reached its potential.

The major technical step came at the annual convention of the National Association of Home Builders this past January. The Consumer Electronics Group of the Electronic Industries Association unveiled an engineering standard capable of interconnecting consumer electronic products, household appliances and home services. The standard is called CEBus or the Consumer Electronics Bus.

The standard offers the prospect of affordable home automation.

The ability to interconnect will allow home electronics products and residential functions such as heating/air conditioning and home security systems to "talk" electronically to each other in the intelligent home of the future. After testing of the standard during 1989 manufacturers will decide whether to adopt the standard.

Development of the standard marks the culmination of more than four years of work by an interindustry committee made up of both EIA members and nonmember companies.

Formed in 1984 under the direction of EIA/CEG, the committee includes both consumer electronics manufacturers and companies representing the cable, security/alarm, telecommunications, appliance, heating/air conditioning, central home control, industrial control and energy utility industries. Committee chairman Jud Hofman of Panasonic Technologies said the standard is moving the industry much closer to the era of home automation.

Home automation is the integration of residential systems and products through microprocessor-based intelligence and interproduct communications.
—Parks Associates

What began as a dozen member companies soon grew to some 50 participating organizations, with another 100 monitoring their progress.

Microprocessors have become an integral part of most consumer electronics products and home appliances, yet few of these products are capable of "communicating" with each other. A "common language" and uniform protocols were needed to solve control problems.

Now with a standard for a common language, companies such as CyberLYNX of Boulder, Colo., and AISI Research Corp. of San Ramon, Calif., have announced CEBus chips. Larger appliance manufacturers are beginning to test the technology for inclusion in product lines.

"You can expect to see televisions, HVAC systems and security systems conforming to the CEBus standard as early as this year," said Ludo Bertsch, chief engineer at AISI.

"Although CEBus will allow builders to bridge any medium to the powerline, certain CEBus products, especially in the home entertainment and security fields, will almost certainly be optimized for use with coax or twisted-pair wiring. For this reason it makes sense to seriously consider CEBus wiring implications today for homes builders are designing and constructing."

CEBus is not similar to X10 powerline products, he said. While X10 is limited to one-way powerline transmission over hot lines, Bertsch said CEBus can operate two-way transmission over coaxial cable, twisted pair, fiber optics, infrared, radio as well as the powerline.

CEBus is not the same as the Smart House system being developed by a partnership affiliated with the National Association of Home Builders. It will be limited initially to companies which have paid fees to participate.

CEBus is an open system in which all electronic product manufacturers have been invited to take part in standards development. The manufacturers do not have to pay royalties to the EIA to incorporate CEBus. □

Continued on page 64

Electronic Industry Association standard could affect how builders wire homes

Do Builders And The Public Know What Home Automation Means?

Continued from page 63

Do home builders and the general public understand what the full scope of home automation is?

The executive director of a relatively new trade association does not think so.

Some home builders also have a wrong perception of what home automation is, according to Roy Mason, executive director of the Home Automation Association, based in Betheseda, Md.

Builders think home automation is the Smart House being developed by the National Association of Home Builders, said Mason.

"They do not realize that there are many home automation products existing now and that they don't have to wait until the Smart House becomes available," Mason said. "And they don't understand particularly that home automation products now can deal with retrofitting—something that the Smart House will not deal with initially."

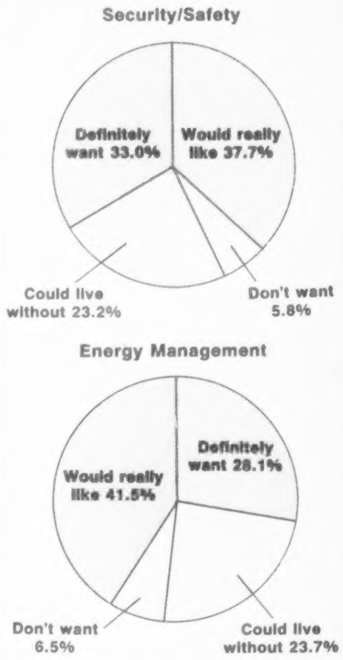
The general public also has an incorrect perception of what home automation is, according to Mason. For most people, he said, home automation is seen as a high ticket item that is only for the rich. But Mason said most of home automation functions can be done with lower priced systems, costing hundreds to several thousand dollars. Not all home automation systems cost more than $10,000.

The learning cure about home automation can be very slow. But once builders see the advantage of using a home automation system they become repeat customers, putting the system in their second and third homes, Mason said.

Membership reached 50 people in January during the annual convention of the NAHB. Mason anticipates more than 250 members by year's end.

Issues to be explored by the association include standardization, product certification, protocol and user interface, information sharing, public education, building code modification, customer service, insurance and liability as well as utility relations. □

Importance Of Intelligent House Features



Source:* Professional Builder *Consumer Survey on Housing 1988

Market Potential: The Percentage of U.S. Housing Starts With High End Controller by Year 2000 (By Home Price)

	Less than $100,000	$100,000 to $200,000	More than $200,000	All
High-end central controller	2.3%	11.2%	33.7%	11.23%
Intelligent controller interface	0.3	2.4	7.2	2.4
Intelligent security system controller	4.3	30.0	62.3	13.3
Intelligent HVAC controller	4.8	24.2	72.0	17.2
Intelligent lighting controller	0.5	3.8	11.4	3.7
Intelligent communications controller	3.7	18.6	46.4	16.9

Source: Parks Associates

EXECUTIVE COMPENSATION

Base salaries for residential builders increased at an annual rate of 5 to 6 percent in 1988 for the second year in a row. Total compensation levels, consisting primarily of base salaries and annual incentive payments, increased at a slightly lower pace, averaging 4.5 to 5.5 percent (see table, following page).

Salary increases in the home building industry were on par with general industry increases which averaged 5.6 percent for officers and executives in 1988 according to the annual Salary Budget Survey conducted by the American Compensation Association.

Yet in spite of overall increases, individual companies show wide fluctuations in pay. Although the last several years have shown moderate gains in compensation for the home building industry, the fluctuations in pay levels reported by individual companies underscore the variability of pay levels in housing. Some of this variability is attributable to financial performance and some is based on the design of compensation programs which may provide larger payments in certain years.

Builders tend to leverage pay off incentive plans. The cash orientation of the industry is based on the need to tie compensation to results in the face of a very cyclical industry and to reinforce the risk and reward aspects for pay for the executive officers. Thus, the compensation philosophy for companies may be as simple as "pay a base salary required to get the executive and offer an incentive opportunity that is based on the strategic plan for the organization and that pays well for results."

This cash orientation as a company philosophy is revealed by the contents of Fleetwood Enterprises' 1988 proxy which states:

"Fleetwood adapted its incentive compensation program during its early development period as a means of attracting capable managers and officers and relating their compensation directly to their performance and to the ability of Fleetwood and its subsidiaries to compensate them.

"As a result of Fleetwood's emphasis on motivating its officers and supervisory employees by means of cash incentives, such employees are generally not provided with many of the employee benefits which are customarily received by employees of comparable companies who are employed in similar capacities."

In addition to annual plans, most of the medium-sized and large companies have a longer term or multiyear incentive plan. There was increase in incentive stock option plans in 1988 over 1987 (box).

With Black Monday a year and a half in the past, it is apparent that the popularity of stock-based plans has not diminished. □

By Joan Dilg, and George Korean, The Wyatt Co. San Diego.

Prevalence Of Long-Term Income Plans

Type of plan	Percent of companies reporting
Non-qualified stock options: right to purchase stock at stipulated price over period of time	22%
Incentive stock options: right to purchase stock at least equal to fair market value	35
Non-qualified or incentive stock options	31
Stock appreciation rights: may realize appreciation without rights or ownership	12
Multiyear cash bonus: receives cash for achievement of objectives	3
Deferred compensation: receives portion of salary on deferred basis	39
Combination	10

Executive Pay Increased 6 Percent For Presidents Of Large Building Companies

1988 Survey Of Executive Compensation For The Home Building Industry

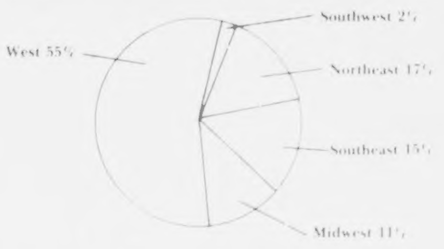
	Salary low	Salary average	Salary high	Typical bonus	Typical total compensation
Large companies ($225 million or more in annual revenue)					
President	$159,300	$238,500	$380,500	$127,900	$366,400
Executive vice president	110,700	161,100	274,200	81,900	243,000
Top development executive	102,300	140,400	217,900	82,100	222,500
Top financial executive	104,600	141,700	178,700	49,300	191,000
Regional manager	101,000	133,100	170,900	78,200	211,300
Top marketing executive	63,900	91,000	120,200	20,500	111,500
Top construction executive	69,400	105,100	142,100	42,100	147,200
Division president	106,900	136,600	177,700	80,000	216,600
Division marketing/sales head	59,300	73,200	103,200	16,700	89,900
Division construction head	60,500	81,800	107,600	16,100	97,900
Division controller	55,900	76,400	99,800	7,500	83,900
Medium companies (approximately $100 million in annual revenue)					
President	$132,600	$172,200	$321,400	$87,900	$260,100
Executive vice president	107,300	135,500	203,600	69,800	205,300
Top development executive	91,200	123,200	176,500	72,000	195,200
Top financial executive	90,000	116,100	174,100	44,600	160,700
Controller	67,800	89,400	108,400	17,900	107,300
Top construction head	63,600	88,600	122,900	24,000	112,600
Top marketing executive	64,500	75,300	110,000	19,200	94,500
Division president	89,500	106,300	142,800	37,700	144,000
Division marketing/sales head	47,500	63,400	84,600	15,800	75,700
Division construction head	52,800	67,800	82,500	9,400	77,200
Small companies (less than $50 million in annual revenue)					
President	$83,600	$141,100	$276,000	$45,100	$186,200
Executive vice president	79,500	120,500	153,000	35,100	155,600
Top financial executive	73,600	100,500	136,400	20,200	120,700
Project manager	52,400	84,100	110,600	23,900	108,000
Top construction head	48,700	76,600	108,300	17,200	93,800
Top marketing executive	45,600	69,400	101,300	19,300	88,700
Top sales executive	42,300	61,400	87,500	15,900	77,300

Source: The Wyatt Company and Korn/Ferry International

Executive Demand By Job Function

General/development management	33%
Chief financial officer/controller	21
Acquisitions/forward planning	19
Construction management	9
Miscellaneous	7
Asset/property management	6
Marketing/leasing	5

Executive Demand By Region



Source: Korn/Ferry International Data

Photo: Comstock

Congress Gets Tough On Executive Welfare Benefits

The Tax Reform Act of 1986 established Internal Revenue Code Section 89, dealing with nondiscrimination requirements related to employee benefit plans. In enacting such legislation, Congress wanted to ensure that the coverage provided would be broad based and that employer contributions for such coverage would be distributed equitably between highly compensated and non-highly compensated employees.

The New Requirements

Section 89 introduced two sets of requirements—commonly referred to as the "qualification rules" and the "non-discrimination tests." These requirements generally go into effect for most employers as of the beginning of the first plan year beginning in 1989.

If the qualification rules are not met for a particular plan, then the employer-provided benefit received under that plan becomes taxable income to all employees. Proposed regulations establish certain caps on the amount of benefits to be included in income in such circumstances. These caps are based on percentages of compensation, which increase as compensation becomes greater.

If the non-discrimination tests are failed, then the discriminatory excess (that is, the amount that caused the plan to be discriminatory) becomes taxable income to some portion (or possibly all) of the highly compensated employee group.

In either case, if such taxable income is not reported by the employer on the employee's W-2 statement, employers become liable for a sanction at the highest individual income tax rate on the total employer-provided benefits received under all plans of the same type.

In order to apply the non-discrimination test, employers are required to collect comprehensive data about who is eligible and who is actually covered under their various benefit plans. In many cases, such data is not currently being collected and may not even be available.

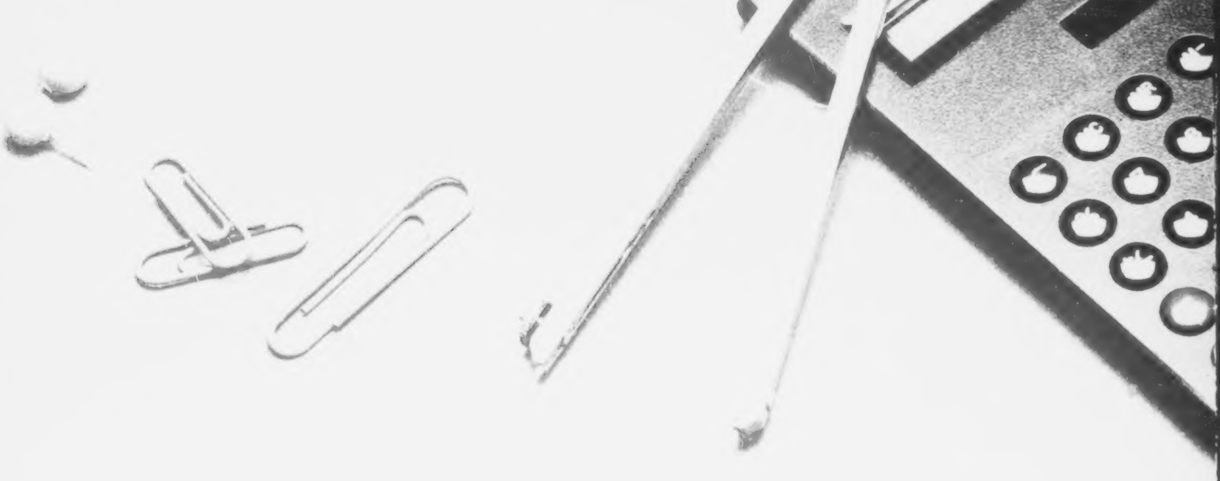
What Can Employers Do?

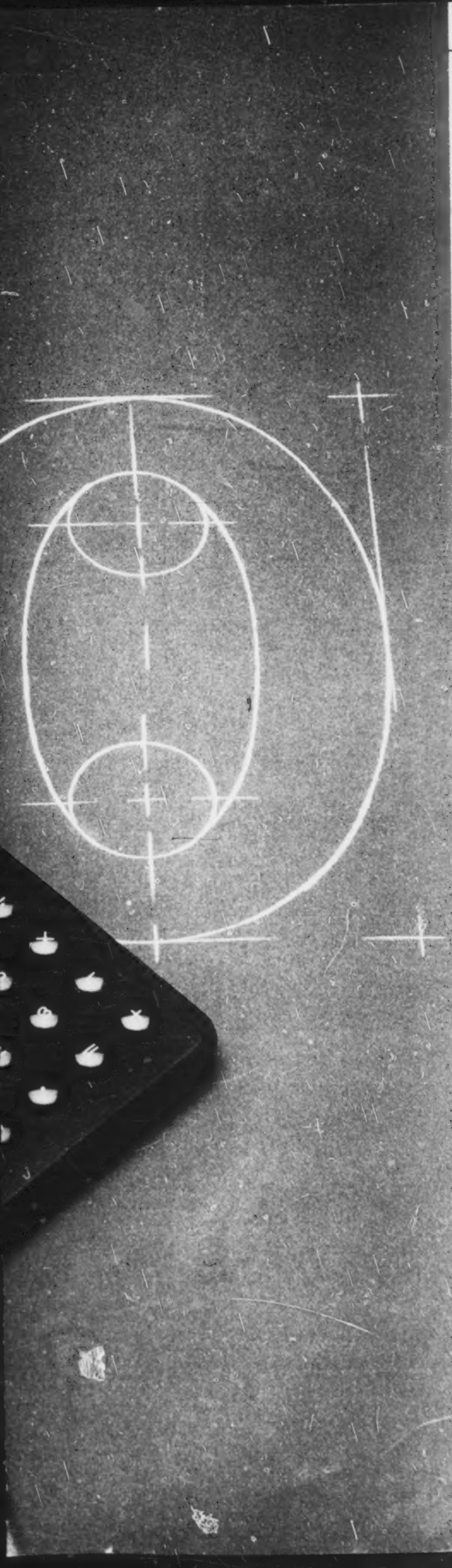
There are several approaches employers can take in response to any discrimination problems created by Section 89.

☐ Many employers may simply assess their affected highly compensated employees with additional taxable income.

☐ Others may go one step further and "gross up" the income of their affected highly compensated employees enough to cover the tax on the discriminatory portion of their benefits.

☐ Still other employers may modify the benefit design of their plans and/or the eligibility requirements to bring their plans into compliance. However, this last approach may be even more costly to employers than grossing up, since it might often require that benefits be provided to employees not presently covered, thereby increasing the employer's outlay for benefits. ☐





22nd Annual Report Of Housing's Giants®

The big got bigger and some of the mightiest fell in 1988. Seven building companies weigh in with annual revenues of $1 billion or more.

Last year, Giants turned their attention to the building of houses. Just more than 51 percent of their total revenues in 1988 came from the building and selling of new, for-sale houses—up from 44 percent from 1987.

Yet as they were building more houses, they built fewer apartment units. Revenues from apartment construction measured 11.7 percent of total revenues, compared to 13.8 percent the previous year.

Overall, the trend in 1988 was down—fewer units and lower revenues. In 1988, the Giant 400 turned out 496,177 new homes, broken down as: 215,847 for-sale units; 109,955 apartment units; 20,576 modular, panelized and precut units; and 149,799 mobile homes. Total revenues were $57.1 billion, down from $57.8 billion in 1987.

That's a summary of *Professional Builder*'s 22nd ANNUAL REPORT OF HOUSING'S GIANTS®, the Giant 400. PB first documented the nation's largest builders in 1968.

Apartment builders really took it on the chin in 1988. Apartment units put into service by the Giant 400 last year totaled 109,955, down 24 percent from the 145,450 units in 1987.

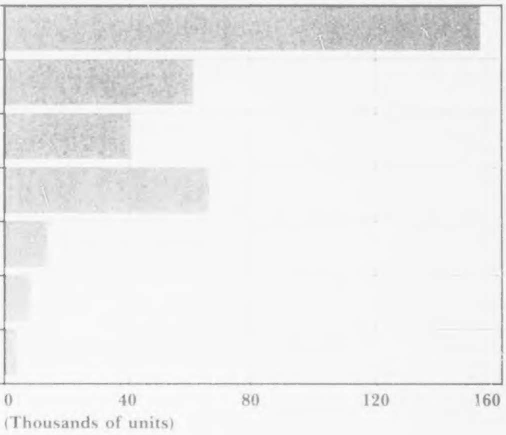
But two apartment builders take the top spots in this 1989 ANNUAL REPORT OF HOUSING'S GIANTS®. Trammell Crow Cos tops the Giant 400, knocking long-time No.1 Lincoln Property Co. to the No.2 position. Trammell Crow vaulted to the lead because it reported its non-residential revenues for the first time this year.

PB's ANNUAL REPORT OF HOUSING'S GIANTS® is a report of diversified building companies. Most builders, not just the Giant 400, are involved in multiple construction activities—including for-sale housing, apartment construction, remodeling, non-residential, factory-building, high-rise construction,

ANNUAL REPORT OF HOUSING'S GIANTS®

The Giant 400 Unit Production In 1988

Source	1988	1987
Single-family detached for sale 155,214 units	44.8%	38.8%
Single-family attached for sale 60,633 units	17.5	16.3
Low-rise apartments for own portfolio 42,451 units	12.3	13.3
Low-rise apartments for investors 67,504 units	19.5	23.0
Modular housing 11,611 units	3.3	5.5
Panelized housing 7,303 units	2.1	2.4
Precut housing 1,662 units	0.5	0.7
Total units	346,378	400,635



In addition, the Giant 400 manufactured 149,799 mobile homes in 1988 compared to 171,581 mobile homes manufactured in 1987.

NVR L.P. Is Still The For-Sale Housing Leader

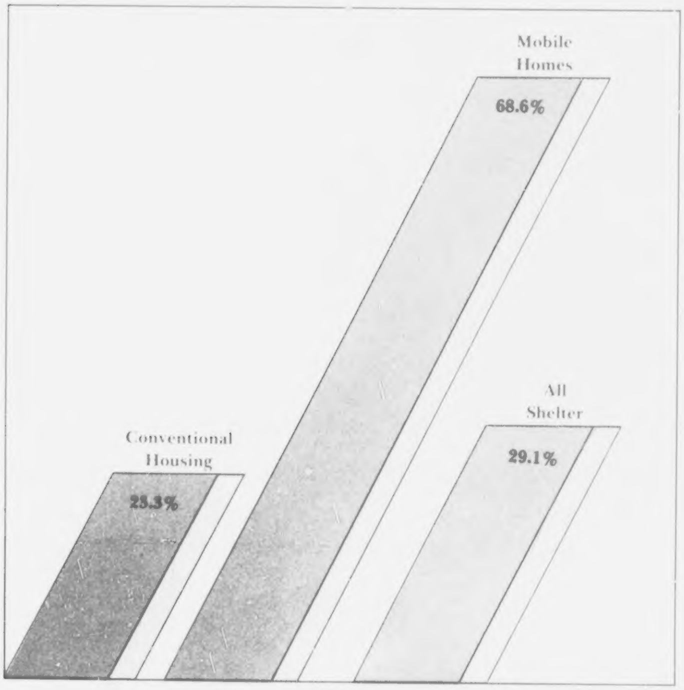
	For-Sale Housing	Rental Housing	Mobile Homes	Manufactured Housing
1.	NVR L.P. $984,082,000 8556 units	Trammell Crow Co. $620,325,000 12,023 units	Fleetwood Enterprises $535,300,000 36,703 units	North American Housing $81,000,000 2364 units
2.	**William Lyon Co.** **$861,000,000** **5395 units**	**Lincoln Property Co.** **$265,414,000** **4012 units**	**Redman Homes** **$268,014,000** **16,038 units**	**Ryland Group** **$70,000,000 est.** **1781 units**
3.	PHM Corp. $823,667,000 6985 units	Oxford Development $240,000,000 2684 units	Champion Home Builders $263,761,000 13,953 units	Wausau Homes Inc. $67,950,000 2750 units
4.	**Ryland Group Inc.** **$810,684,000** **7573 units**	**William Lyon Co.** **$239,000,000** **2687 units**	**Skyline Corp.** **$240,627,304** **14,640 units**	**Nanticoke Homes Inc.** **$60,708,525** **980 units**
5.	Centex Corp. $769,364,000 6539 units	Forest City Dev. $206,348,265 1346 units	Palm Harbor Group $157,017,515 6277 units	National Enterprises Inc. $59,341,000 4845 units
6.	**Kaufman And Broad** **$693,815,000** **4836 units**	**Robertson Homes** **$197,000,000** **3050 units**	**Clayton Homes Inc.** **$137,368,000** **9350 units**	**Ritz-Craft Corp. of Pa.** **$57,000,000** **1800 units**
7.	M.D.C. Holdings Inc. $640,677,000 4703 units	A.G. Spanos Construction $195,900,000 3569 units	Commodore Corp. $104,713,000 5894 units	Coachmen Housing $51,303,928 1681 units
8.	**U.S. Home Corp.** **$636,944,000** **6178 units**	**Homestead Group Assoc.** **$190,000,000** **984 units**	**Schult Homes Corp.** **$103,213,000** **4729 units**	**Contempri Homes Inc.** **$44,550,000** **1238 units**
9.	Weyerhaeuser Real Estate Co. $609,000,000 5160 units	Fogelman Properties $189,000,000 3913 units	Horton Homes Inc. $103,000,000 6312 units	Lindal Cedar Homes Inc. $40,000,000 810 units
10.	**Watt Industries Inc.** **$532,000,000** **2033 units**	**CoastFed Properties** **$185,267,000** **1242 units**	**Cavalier Homes Inc.** **$91,807,630** **6201 units**	**DeLuxe Homes of Pa. Inc.** **$25,571,174** **763 units**

The Giant 400's Share Of Market Dips To 23.3%

The Giant 400 built and sold 346,378 conventional units and 149,799 mobile home units in 1988.

Year of Report	Conventional Housing	Mobile Homes	All Shelter
1977	20.2%	76.5%	28.0%
1978	19.1	86.8	27.3
1979	18.4	77.6	25.5
1980	20.8	82.2	29.2
1981	22.6	81.0	31.0
1982	22.8	82.1	32.6
1983	23.0	82.6	34.0
1984	21.3	75.4	29.3
1985	25.7	75.9	32.
1986	27.9	69.2	33.8
1987	25.2	70.6	34.7
1988	24.6	73.7	30.7
1989	23.3	68.6	29.1

Percentages for conventional housing are figured on previous year's total public and private housing starts. Mobile-home share of market is based on previous year's mobile-home shipments.



Fleetwood Built The Most Units—36,703 Mobile Homes.

units. In addition, PB ranks the top 10 builders by revenues in factory building (modular, panelized and precut homes) and mobile homes.

North American Housing Corp. registered the largest revenues in factory-built housing (modular, panelized and precut homes), tallying $81 million from the sale of 2364 modular units.

Fleetwood, the Giant 400 unit leader, also reigns as top mobile home Giant with revenues of $535 million from the production of 36,703 units.

This year, factory-built housing leaders are based on their sales to outside builders. So single-family units by NVR and Ryland, for example, which are panelized homes built by the firms' own factories, are not included. But Ryland's modular houses are counted because these are sold to other builders.

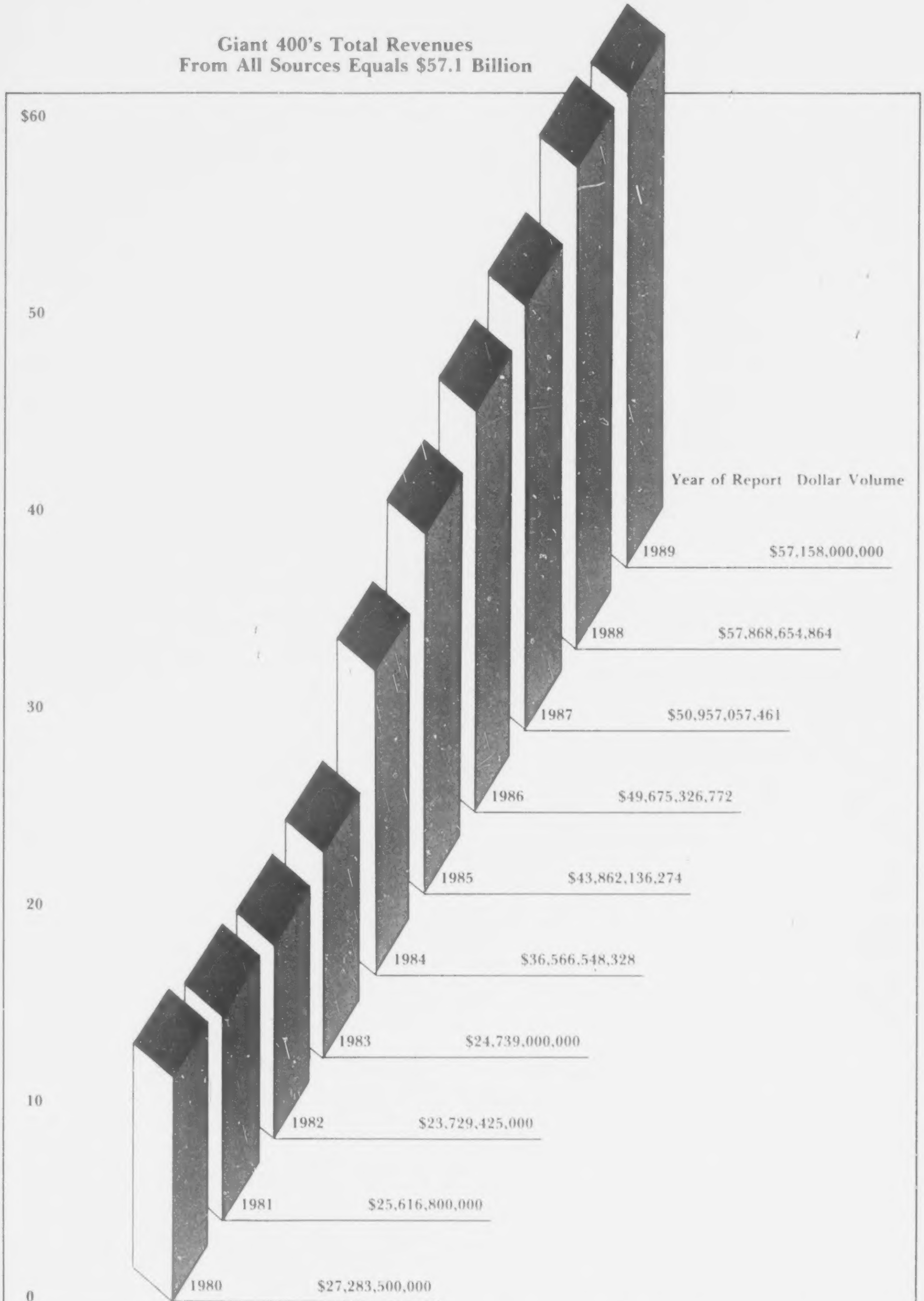
Last year, some of the mightiest Giants fell. This 1989 report does not include four long-time home building Giants. Mission Viejo Realty Group continued its phase-out of home building operations to concentrate on land development. Thus, it does not qualify. Out, too, are Cardinal Industries, Lieberman Homes and Gemcraft Homes—all of which encountered financial troubles or started bankruptcy proceedings in 1988 or 1989.

To compile this report, *Professional Builder* mailed surveys early this year to its database of large volume builders. The presidents or other key executive officers completed and returned the questionnaire. PB estimated the unit production, revenues or both of just a few builders it believed qualified for Giant status. Those estimates are clearly noted.

Last year, the big got bigger. *Professional Builder*'s $1 Billion Club welcomes four new members. William Lyon Co., NVR, Ryland Group and PHM Corp. join last

ANNUAL REPORT OF HOUSING'S GIANTS®

Giant 400's Total Revenues
From All Sources Equals $57.1 Billion



Year shown is the year of report. Beginning with 1987 report, PB limited the number of Giants to 400. From 1980 to 1986, Giants were those builders with annual revenues of at least $15 million.

THE 400

Trammell Crow Showed The Largest Dollar Increase In 1988, But The Kathryn G. Thompson Development Co. Grew 393%

	Builder	Increase, 1987 to 1988	Total 1988 Revenues
1.	Trammell Crow	$1,919,602,736	$3,018,500,000
2.	William Lyon Co.	580,000,000	1,401,000,000
3.	NVR L.P.	451,503,000	1,321,975,000
4.	PHM Corp.	385,564,000	1,179,164,000
5.	Centex Corp.	385,423,000	1,845,484,000
6.	Ryland Group	369,943,000	1,217,875,000
7.	Anden Group	262,887,000	450,887,000
8.	Coscan Development	229,530,308	332,413,200
9.	Bramalea California Inc.	227,490,916	365,949,000
10.	Kaufman And Broad	211,978,000	903,399,000

	Builder	Percentage Increase, 1987 to 1988	1988 Revenues
1.	Kathryn G. Thompson Dev.	393%	$ 96,373,702
2.	Signature Homes	316	73,000,000
3.	Coscan Development	223	332,413,200
4.	Newmark Home Corp.	207	44,971,924
5.	Premier Homes	196	79,800,000
6.	Arker Cos.	191	43,795,000
7.	Trammell Crow	174	3,018,5000,000
8.	Bramalea California Inc.	164	365,949,000
9.	Anden Group	139	450,887,000
10.	Colson & Colson	133	146,183,822

Average House Price Built By Giant 400 Increased 17%

year's $1 billion firms Trammell Crow, Lincoln Property and Centex.

Lyon joins the club because its 1988 revenues include those of the Presley Cos., listed separately in last year's report. William Lyon Co. is the only firm to report housing revenues of $1 billion or more.

Accounting rule changes regarding the consolidation of financial subsidiaries (Statement of Financial Accounting Standard 94) kick NVR, Ryland and PHM into the club. By restating 1987 revenues to comply with the standard, Ryland, PHM and NVR also would have joined the $1 Billion Club in last year's report.

The Giant 400 built slightly more expensive housing than the national average last year. In 1988, the average house price built by Giants increased 17 percent to $143,286, almost $4800 more than the U.S. average price new home price of $138,500.

Fastest-growing Giant is Kathryn G. Thompson Development Co. which grew 393 percent to $96.3 million revenues in 1988 from $19.5 million in 1987. Trammell Crow Co., based on its inclusion of its non-res activities, posted the largest dollar increase--$1.9 billion to $3 billion in revenues.

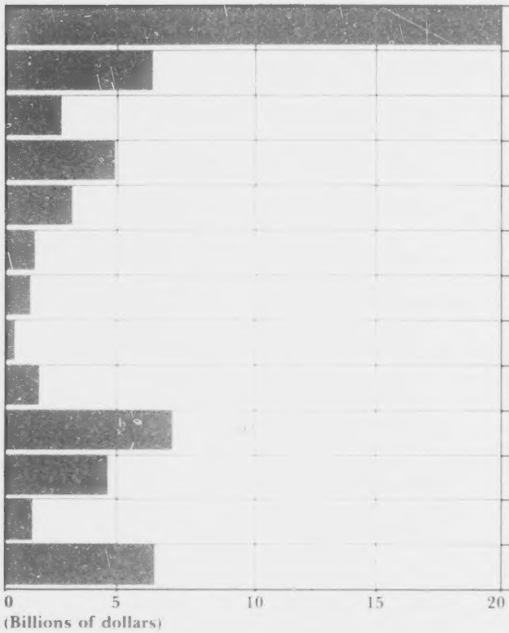
Revenues reported are for calendar year 1988. PB's list is comprised primarily of builders of low-rise housing (four stories or fewer). Those firms that build solely high-rise housing are not included here. Revenues include only sales which have been consummated or closed. Housing units are those that have been sold, not started. Joint venture or partnership activities are included on a pro rata basis.

Factory-built housing revenues are for sales of units to builders, not the ultimate retail value of those units.

Following are rankings of the Giant 400 by units, headquarters states and revenues. ☐

ANNUAL REPORT OF HOUSING'S GIANTS®

How The Giant 400 Earned Their Revenues



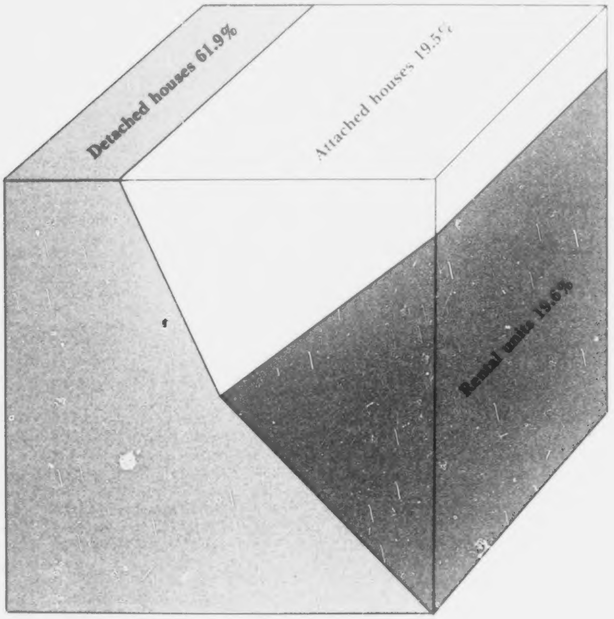
Source	1988	1987
Single-family detached for sale $22,240,000,000	38.9%	32.7%
Single-family attached for sale $6,990,000,000	12.2	12.0
Low-rise apartments for own portfolio $2,233,000,000	3.9	4.8
Low-rise apartments for investors $4,471,000	7.8	9.0
Mobile homes $2,691,000,000	4.7	4.8
Modular housing $401,000,000	0.7	1.2
Panelized housing $129,000,000	0.2	1.0
Precut housing $44,000,000	0.1	0.1
High-rise $530,000,000	0.9	1.3
Land sales $6,832,000,000	12.0	10.7
Non-res construction $4,268,000,000	7.5	7.3
Remodeling and rehabilitation $285,000,000	0.5	0.4
Other (rents, fees, interest) $6,044,000,000	10.6	14.7
Total revenues	$57,158,000,000	

Trammell Crow Is Industry Leader with $3 Billion In Revenues

	1989 Report	1988 Report	1987 Report	1986 Report	1985 Report
1.	**Trammell Crow** **$3,018,500,000**	**Lincoln Property** **$2,504,049,000**	**Lincoln Property** **$2,233,218,000**	**Lincoln Property** **$2,164,310,000**	**Lincoln Property** **$1,846,218,000**
2.	Lincoln Property Co. $2,126,997,000	Centex Corp. $1,460,061,000	Centex Corp. $1,303,897,000	Centex Corp $1,266,232,000	U.S. Home $1,103,644,000
3.	**Centex Corp.** **$1,845,484,000**	**Trammell Crow** **$1,098,807,284**	**Trammell Crow** **$1,074,620,000**	**Trammell Crow** **$1,184,334,000**	**Centex Corp.** **$1,071,400,000**
4.	William Lyon Cos. $1,401,000,000	Weyerhaeuser $886,000,000	Weyerhaeuser $856,820,000	N.C.H.P. $970,967,000	Pulte Home $841,988,000
5.	**NVR L.P.** **$1,221,275,000**	**NV Ryan** **$870,472,000**	**Pulte Home** **$840,714,000**	**U.S. Home Corp.** [illegible]	**Amer. Diversified** [illegible]
6.	Ryland Group $1,271,875,000	Ryland Group $847,932,000	U.S. Home $766,524,934	Weyerhaeuser $777,574,000	Weyerhaeuser $705,064,000
7.	**PHM Corp.** **$1,171,164,000**	**William Lyon** [illegible]	**M.D.C. Holdings** **$706,210,000**	**Pulte Home** [illegible]	**N.C.H.P.** [illegible]
8.	Kaufman And Broad Home $903,399,000	M.D.C. Holdings $799,800,000	William Lyon $692,141,000	Oxford Dev. $708,000,000	A.G. Spanos Cos. $651,833,000
9.	**M.D.C. Holdings** [illegible]	**Pulte Home** [illegible]	**Ryland Group** [illegible]	**Ryan Homes** **$577,170,000**	**Ryan Homes** [illegible]
10.	Weyerhaeuser Real Estate $819,000,000	U.S. Home $786,659,000	N.C.H.P. $652,062,000	Paragon Group $529,950,000	Trammell Crow $585,253,000

The Giants Are House Builders

Housing revenues are split among the Giant 400. In 1988, detached housing increased its share from 56% in 1987. Increase came at the expense of rental housing, which accounted for 24% of revenues in 1987. Attached housing revenues in 1988 dipped slightly from 20% in 1987.



Mergers, Acquisitions, Shakeouts Among The Giant 400

Some familiar names do not appear in this year's report. Cardinal Industries, Lieberman Homes and Gemcraft all encountered financial troubles since the last report. Some went bankrupt or filed for reorganization. Mission Viejo drops out of the Giant 400 because it no longer builds housing. Instead, it is concentrating on land development.

In addition to the acquisitions listed below, some Giants merged or acquired assets of other, smaller builders. For instance, Sun City Center merged with a land development company to concentrate on the retirement market. And Huges-Patwill acquired Foxchase Homes in Pennsylvania and West Virginia.

General Development acquired Glen Ivy Financial Group—the largest vacation timesharing in the Western United States. Covington Development sold its thermal Impac Panels operations to Keywest Wire for about $400,000.

Entity	Acquired by
Marlborough Development Corp.	Bramalea California Inc. (1/89)
Florida assets of M.D.C. Corp.	Lennar Corp. (1/89)
H.R. Remington	NVR L.P. (10/88)
DW Hutson	Tompkins Heritage (4/88)
Moduline International	Champion Homes Builders (2/88)
Sandling Co. assets	McMillin Cos.
Knoell Homes assets	Shea Homes

7 Builders Recorded 1988 Revenues Of $1 Billion Or More

property management and financial services. This report counts all those revenues. In some cases, firms reported the market value or construction value of their non-res properties and apartments held in portfolio, not sold. Those values are included in total revenues.

Because rankings are based on revenues, not units, some builders that sold more units than the Giant 400 do not make the list.

Basing the ranks on revenues means that Trammel Crow and Lincoln Property rank one and two, even though more than half of their revenues came from nonresidential building. Trammell Crow's housing revenues amounted to 26 percent of its total volume and Lincoln's housing revenues were just 12 percent of its total revenues. Rounding out the top 10 are, in order: Centex Corp., William Lyon Co., NVR L.P., Ryland Group, PHM Corp., Kaufman and Broad Home Corp., M.D.C. Holding Inc. and Weyerhaeuser Real Estate Co.

For the first time since PB's 1971 report, U.S. Home Corp. is not among the nation's 10 largest builders. It ranks No. 12 in this year's report. New to the top 10 this year is No. 8 Kaufman and Broad (from 12 last year).

Though the principal rankings are based on a company's total revenues for the year, PB also generates three other rankings—rank by total unit production, rank by for-sale housing units and rank by rental housing units. And new this year is an alphabetical list of the Giants by their headquarters state. These rankings appear before the individual descriptions of each Giant

Mobile-home Giant Fleetwood Enterprises turned out the most new shelter units—36,703. NVR again built the most for-sale housing—8556 units in 1988. And Trammell Crow tops the list of apartment builders with 12,023

THE 400

Mobile-Home Makers Take First Four Spots
Trammell Crow Leads In Conventional Construction

RANK	COMPANY	TOTAL UNITS
1.	Fleetwood Enterprises	36703
2.	Redman Homes	16038
3.	Skyline Corp.	14640
4.	Champion Home Builders Co.	13953
5.	Trammell Crow Co.	12932
6.	Ryland Group	9354
7.	Clayton Homes	9350
8.	NVR L. P.	8556
9.	William Lyon Co.	8082
10.	PHM Corp.	7249
11.	Horton Homes	6552
12.	Centex Corp.	6539
13.	Palm Harbor Group	6277
14.	Cavalier Homes	6210
15.	U.S. Home Corp.	6178
16.	Commodore Corp.	5894
17.	Jim Walter Homes	5691
18.	Weyerhaeuser Real Estate Co	5400
19.	Schult Homes Corp.	4901
20.	National Enterprises	4845
21.	Kaufman and Broad Home Corp.	4836
22.	M.D.C. Holdings	4703
23.	Liberty Homes	4653
24.	Lennar Corp.	4131
25.	Lincoln Property Co.	4012
26.	Fogelman Properties	3914
27.	Lewis Homes Group of Cos.	3610
28.	Oakwood Homes Corp.	3577
29.	A.G. Spanos Construction	3569
30.	Hovnanian Enterprises	3308
31.	Blazer Building	3200
32.	J.L. Mason Group	3184
33.	Homes of Merit	3122
34.	Robertson Homes	3070
35.	Guerdon Industries	3019
36.	General Homes Corp	2904
37.	Patriot Homes	2753
38.	Wausau Homes	2750
39.	Oxford Development Corp.	2684
40.	Fuqua Homes	2494
41.	Hunt Building Corp.	2464
42.	Golden West Homes	2445
43.	Shapell Industries	2431
44.	Mueller Group	2425
45.	Citation Builders	2403
46.	North American Housing Corp.	2364
47.	Coachmen Housing	2147
48.	United Development Mgmt. Co.	2143
49.	UDC-Universal Development L.P.	2122
50.	Property Company of America	2064
51.	Watt Industries	2033
52.	Anden Group	2030
53.	Summit Properties	1921
54.	Wick Building Systems	1890
55.	Artery Organization	1836
56.	Ritz-Craft Corp. of Pa.	1800
57.	M/I Schottenstein Homes	1773
58.	Standard Pacific L.P.	1756
59.	Calmark Development Corp.	1754
60.	Morris General Building Co.	1739
61.	Silvercrest Mfgd. Housing Inc	1713
62.	Newport Pacific Development	1681
63.	Homestead Land Development	1664
64.	Dominion Developments	1645
65.	Shelter Canadian	1632
66.	Picerne Properties	1624
67.	Colson & Colson Constr. Co.	1607
68.	Holtzman & Silverman Const. Co	1579
69.	VRI Builders	1542
70.	Prometheus Development Co.	1528
71.	San-T Development Corp.	1494
72.	Embrey Investments	est. 1464
73.	CoastFed Properties	1444
73.	Griffin Homes	1444
75.	Bramalea California	1442
76.	Edward Rose Building Ent.	1440
77.	Robert Randall Co.	1389
78.	Dunmore Homes	1386
79.	Barratt American	1370
80.	Lusk Co.	1365
81.	Forest City Development	1346
82.	Catalina Homes	1302
83.	Cenvill Development Corp.	est. 1300
84.	Shelter Contractors	1290
85.	General Development Corp.	1288
86.	Shea Homes	1277
87.	Tompkins Heritage Homes	1266
88.	Oriole Homes Corp.	1252
89.	Barnett-Range Corp.	1251
90.	Centron Construction Corp.	est. 1250
91.	Contempri Homes	1238
92.	J.M. Peters Co.	1237
93.	Fieldstone Co.	1214
94.	Sexton Companies	1200
94.	George Wimpey	1200
96.	Kaplan Organization	1180
96.	Paragon Group	1180
98.	Summerhill Development	1170
99.	Pacific Scene	1164
100.	Continental Homes Holding Co.	1161
101.	Regis Homes Corp.	1158
102.	Lexington Development Corp.	1148
103.	Zaremba Development Co.	1144
104.	Altman Development	1143
105.	LeCesse Corp.	1137
106.	L.J. Hooker Homes	1136
107.	Diversified Housing Corp.	1130
108.	Coscan Development Corp.	1123
109.	Primark Corp.	1121
110.	Drees Co.	1095
111.	Beazer Properties	1083
112.	Orange Blossom Hills	1075
113.	A-M Homes	1074
114.	Evans Withycombe	1070
115.	Calton	1050
115.	Epoch Properties	1050
117.	Penn Lyon Homes	1046
118.	Poloron Homes of Pa.	1035
119.	Forecast Mortgage Corp.	1030
120.	Arthur Rutenberg Corp.	1029
121.	Warmington Homes	1024
122.	Wallick Construction Co.	1019
123.	Oceanic Properties	1013
124.	Harkins Group	1011
125.	International American Homes	1003
126.	Foreston Development Corp.	1000
127.	H.C. Elliott	991
128.	Amrep Corp.	989
129.	Homestead Group Assoc.	984
130.	Weekley Homes	982
131.	Nanticoke Homes	980
132.	Harold Moore & Associates	939
133.	Lycon Group	928
134.	Home Capital Development	902
135.	Leisure Technology	887
136.	Burg & DiVosta	874
137.	Continental Financial Corp.	868
138.	Harlon-East Properties	857
139.	Benchmark Communities	851
140.	Condiotti Enterprises	842
141.	Woodcrest Development	835
142.	Lokey Properties	811
143.	Lindal Cedar Homes	810
144.	Clark-Wayland-Tarver	est. 800
145.	DeLuxe Homes of Pa.	799
146.	Weingarten Siegel Group	793
147.	Del E. Webb Communities	792
148.	Fairfield Communities	791
149.	Landstar Homes	778
149.	Toll Brothers	778
151.	Washington Homes	765
152.	Luckey Co.	762
153.	Grupe Co.	757
154.	Valencia Co.	756
155.	McBail Co.	750
156.	Friendswood Development Co.	742
157.	Paragon Homes	739
158.	Hughes-Patwil Homes	738
159.	Arvida/JMB Partners L.P.	732
160.	GlenFed Development Corp.	720
160.	Urban West Communities	720
162.	Union Valley Corp.	713
163.	S & A Custom Built Homes	710
164.	Brindley Constr. Co.	707
165.	Goldrich & Kest Industries	706
166.	Baldwin Co	687
167.	Winncrest Homes	685
168.	Estes Construction Co.	est. 673
169.	Frank Robino Associates	671
170.	John Wieland Homes	664
171.	Levitt Corp.	653
172.	Hills Developers	648
172.	Milton Co.	648
174.	Cambridge Homes	639
174.	RecreActions Group	639
176.	Nationwide Homes	630
177.	Engle Group	628
178.	Sunrise Co.	625
179.	Taylor Morley Simon	623
180.	Engineered Concepts	622
181.	Gulfstream Land & Dev. Corp.	620
182.	Rayco (Ellison Homes)	618
183.	Holly Corp.	617
184.	Hunt Properties	614
185.	Homestead Development Co.Inc.	607
186.	Century Homes	600
187.	Jones Co.	590
188.	Mitchell Co.	584
189.	Dividend Development Corp.	574
190.	Corcoran Jennison Cos.	572
190.	Hoffman Group	572
192.	FPA Corp.	571
193.	James Lewis Corp.	565
194.	Bill Milburn Co.	563
195.	California Communities	561
196.	Pasquinelli Construction Co.	557
197.	Long Signature Homes	554
198.	Emerald Homes L. P.	553
199.	Cloverleaf Properties.	552
200.	Hylton Enterprises (VA)	550
201.	Kimball Hill	547

RANK	COMPANY	TOTAL UNITS
202.	Silver Cos.	544
203.	Fryling Construction	534
203.	JL Construction Co.	534
205.	Holiday Builders	530
206.	Orleans Construction Corp.	523
207.	Ahmanson Developments	522
208.	Premier Homes	515
209.	Kettler Brothers	513
210.	Buie Corp.	509
210.	Ridgeway Development Co.	509
212.	Larwin Construction Co.	508
213.	Kathryn G. Thompson Dev. Co.	506
214.	Palm Coast Construction Co.	505
215.	First Financial Group	502
216.	Covington Technologies	501
217.	Bozzuto & Associates	494
218.	DiLoreto Construction	489
219.	Lockwood Group	482
220.	Century American Corp.	470
221.	Hofmann Co.	467
222.	Town & Country Homes	460
223.	Gregory Group	459
224.	Interstate General Co. L.P.	456
224.	M.J. Peterson Real Estate	456
226.	Iacobucci Organization	447
227.	McKellar Dev. of La Jolla	438
228.	Inco Homes	432
229.	Regency Organization	426
230.	Home & Country	425
231.	Douglas Allred Co.	424
232.	Michaels Group	422
233.	Fairfield Homes	418
234.	McMillin Cos.	417
235.	Roy E. Daly & Co.	412
236.	Oberer Development Co.	411
236.	Weitzer Communities Ltd.	411
238.	Coventry Financial	409
239.	New Fortis Corp.	408
240.	American West Development	403
241.	Gentry Cos.	402
242.	Ira L. Brummell Dev. Co.	400
242.	John Cooley Co.	400
244.	Kingsway Construction Co.	399
245.	Anastasi Construction Co. Inc	398
246.	Borror Corp.	395
247.	Stanley Martin Cos.	394
248.	Amurcon Corp. of Virginia	390
248.	Sun State Development	390
250.	Laing (John) Homes	388
251.	Stokes and Co.	374
252.	Key Company	367
253.	Brehm Communities	364
254.	Hillside Residential	360
255.	Unique ConstructionInc.	359
256.	Miller and Smith Cos.	354
257.	Cooper Communities	344
258.	Coleman Co.	343
259.	Friedman Homes	342
260.	Wynne Building Corp.	340
261.	Canuso (John B.)	339
262.	Newmark Home Corp.	335
263.	Segal Associates	330
264.	Roberts Properties	328
264.	Westfield Development	328
266.	Good Value Homes	324
267.	David Cutler Group	321
267.	Fralin and Waldron	321
269.	Wellesley Construction Co. Inc	317
270.	Calprop Corp.	315
270.	Sunland Consolidated	315
270.	Zaring National Corp.	315
273.	Doyle Wilson Co.	314
274.	Red Seal Development Corp.	313
275.	Sun City Center Corp.	308
276.	Holiday Organization	307
277.	James K. Schuler & Associates	304
278.	Harshbarger Construction Corp	302
278.	Homes by Dave Brown	302
280.	Acacia Construction	301
280.	Homestead Properties	301
282.	Davidson Communities	300
283.	Beverly Hills Development	297
283.	Woodview Development Co.	297
285.	Richmarr Construction Corp.	293
285.	West Venture Development Co.	293
287.	Kennedy Group	289
288.	William L. Berry & Co.	288
289.	Graham Cos.	287
289.	Pembroke Enterprises	287
291.	D & S Co.	284
291.	Williamsburg Properties	284
293.	Lan Ron Builders	280
294.	Christopher Cos.	279
295.	Signature Homes	277
296.	Bovis/Brunning Homes	275
297.	McBride & Son Enterprises	274
297.	Kravco Company	274
299.	Crosswinds Communities	270
299.	Zellner Communities	270
301.	Kettier Forlines Inc	269
302.	Ciotti Construction Co.	267
302.	Circle T Corp.	267
304.	Braddock & Logan Associates	265
304.	Van Metre Cos.	265
306.	Writer Corp.	262
307.	Sun Lakes Construction Co.	259
308.	Parker Lancaster Corp.	256
308.	Torino Construction Corp.	256
310.	Deck House	251
311.	Community Construction	250
312.	Sterling Homes Corp. & Subs.	249
313.	Amir Development Co.	246
313.	Pennhill Co.	246
315.	Stonehedge Constr. Co.	245
316.	John C. Heers	est. 243
317.	Greater Midwestern Dev. Co.	240
318.	Realen Homes	238
319.	Estridge Cos.	237
319.	Stone Gate Development Corp.	237
321.	Blitman Building Corp.	225
321.	Hayden Co.	225
323.	R.B. McComic	225
323.	RWS Development Corp.	225
325.	Leader Enterprises	223
326.	Henry Fischer Builder	221
326.	Radnor Homes	221
328.	Westway Construction Corp.	218
329.	Custom Living Communities	212
330.	Chrisdon Communities	209
330.	Mangano Company	209
332.	Burnside Construction Co.	208
332.	Towne Properties	208
334.	Medici Investment Co.	207
335.	Capital Homes Maryland	206
335.	C-I/Mitchell & Best Co.	206
337.	Mayer Homes	205
338.	Signature Properties	203
339.	Avatar Holdings	200
339.	Whitehawk Partnership	200
341.	Gigliotti Corp.	193
342.	Park Place Group	192
343.	Channing Corp.	191
344.	Edward R. Carr & Assoc.	190
344.	Goodman Homes	190
346.	Hearndon/Rosewell Cos.	188
347.	Ryder Properties	187
348.	Foster Brothers	181
349.	Cayman Development	176
350.	Crowell Industries	175
350.	Trilex Properties	175
352.	Prairie Development Ltd.	174
353.	Cinco Development Co.	167
353.	Raznick & Sons	167
353.	Duffel Financial & Constr. Co.	167
353.	Owen Development	167
357.	J.P. Rhoades Development	163
358.	Cunningham Barisic Dev. Corp.	160
359.	Kopf Construction Corp.	159
360.	Acuff & Rhodes	155
361.	Wooldridge Organization	153
362.	Joe Keim Builders	151
363.	Republic Development Co.	150
364.	Frankel Enterprises	148
364.	Karnell Group	148
366.	Coast Construction Co.	145
367.	Ambassador Real Estate	142
368.	Berkeley Realty Group	137
369.	Yusem Homes	132
370.	Lundgren Bros. Const.	130
371.	Poretsky Building Group	127
372.	Pacifica Corp.	125
373.	Zicka Homes	122
374.	Sabatello Construction of Fla.	120
375.	DeLuca Enterprises	118
376.	Elkington Realty & Development	112
377.	Bukiet Bldg. & Mgmt. Co.	110
377.	Joe Harden Builder	110
379.	Drewer Homes	109
380.	Bush Development Corp.	104
381.	Braemar Homes	103
381.	Whitecliff Co.	103
383.	Strathmore Organization	102
384.	Michael T. Rose Associates Inc	101
385.	Rocky Gorge Communities	87
386.	Pinn Brothers Construction	84
387.	Chatham Properties	83
388.	Socaland Development	78
389.	S & Z Development Co.	66
390.	Garden State Land Group	63
391.	Heritage Dev. Group	60
392.	Dimcas	58
392.	Lomas Group	58
394.	Value Group	55
395.	Bresler & Reiner	54
396.	Arker Companies	49
397.	Trojan Properties	44
398.	Weinstock Construction Corp.	31
399.	Planned Residential Comm.	26
400.	Crowell & Baker Const. Co.	17

THE 400

The Giant 400 By For-Sale Housing Production

RANK	COMPANY	UNITS
1	NVR L P	8556
2	Ryland Group Inc	7573
3	PHM Corp	6985
4	Centex Corp	6539
5	U S Home Corp	6178
6	Jim Walter Homes Inc	5691
7	William Lyon Co	5395
8	Weyerhaeuser Real Estate Co	5160
9	Kaufman and Broad Home Corp	4836
10	M D C Holdings Inc	4703
11	Lennar Corp	4131
12	Hovnanian Enterprises Inc	3308
13	General Homes Corp	2904
14	Lewis Homes Group of Cos	2846
15	J L Mason Group Inc	2593
16	Hunt Building Corp	2464
17	Citation Builders	2403
18	UDC-Universal Development L P	2122
19	Shapell Industries	2059
20	Watt Industries Inc	2033
21	Anden Group	2030
22	M/I Schottenstein Homes Inc	1773
23	Standard Pacific L P	1756
24	Griffin Homes	1444
25	Bramalea California Inc	1442
26	Barratt American Inc	1370
27	Catalina Homes	1302
28	Cenvill Development Corp	est 1300
29	General Development Corp	1288
30	J M Peters Co	1237
31	Fieldstone Co	1214
32	Lusk Co	1207
33	George Wimpey Inc	1200
34	Continental Homes Holding Co	1161
35	Lexington Development Corp	1148
36	L J Hooker Homes	1136
37	Coscan Development Corp	1123
38	Oriole Homes Corp	1092
39	Beazer Properties Inc	1083
40	Calton Inc	1050
41	Forecast Mortgage Corp	1030
42	Arthur Rutenberg Corp	1029
43	Warmington Homes	1024
44	Oceanic Properties Inc	1013
45	International American Homes	1003
46	H C Elliott Inc	991
47	San-T Development Corp	990
48	Amrep Corp	989
49	Weekley Homes Inc	982
50	Kaplan Organization	941
51	Shea Homes	923
52	Trammell Crow Residential Co	909
53	Drees Co	893
54	Leisure Technology Inc	887
55	Tompkins Heritage Homes	886
56	Burg & DiVosta	874
57	Continental Financial Corp	868
58	Condiotti Enterprises Inc	842
59	Woodcrest Development Inc	835
60	Weingarten Siegel Group Inc	793
61	Del E Webb Communities Inc	792
62	Fairfield Communities Inc	791
63	Toll Brothers Inc	778
64	Washington Homes Inc	765
65	Friendswood Development Co	742
66	Paragon Homes Inc	739
67	Hughes-Patwil Homes	738
67	Landstar Homes	738
69	Artery Organization Inc	736
70	Arvida/JMB Partners L P	732
71	Home Capital Development Group	725
72	Urban West Communities	720
73	Union Valley Corp	713
74	S & A Custom Built Homes Inc	710
75	Pacific Scene Inc	692
76	United Development Mgmt Co	691
77	Baldwin Co	687
78	McBail Co	686
79	Estes Construction Co	est 673
80	John Wieland Homes	664
81	Levitt Corporation	653
82	Milton Co	648
83	GlenFed Development Corp	639
83	Cambridge Homes Inc	639
85	Engle Group Inc	628
86	Sunrise Co	625
87	Gulfstream Land & Dev Corp	620
88	Rayco Inc (Ellison Homes)	618
89	Homestead Development Co Inc	607
89	Winncrest Homes	607
91	Century Homes	600
92	RecreActions Group	598
93	Jones Co	590
94	Dividend Development Corp	574
95	Hoffman Group Inc	572
96	FPA Corp	571
97	Diversified Housing Corp	565
98	Bill Milburn Co	563
99	California Communities Inc	561
100	Pasquinelli Construction Co	557
101	Long Signature Homes Inc	554
102	Emerald Homes L P	553
103	Dunmore Homes, Inc	534
104	Holiday Builders Inc	530
105	Taylor Morley Simon Inc	527
106	Orleans Construction Corp	523
107	Valencia Co	522
107	Ahmanson Developments Inc	522
109	Premier Homes	515
110	Kettler Brothers Inc	513
111	Kimball Hill Inc	511
112	Buie Corp	509
112	Ridgeway Development Co	509
114	Larwin Construction Co	508
115	Kathryn G Thompson Dev Co	506
116	Palm Coast Construction Co	505
117	Silver Cos	504
118	First Financial Group	502
119	A-M Homes	497
120	Di Loreto Const & Dev Inc	489
121	Wallick Construction Co	470
122	Hofmann Co	467
123	Town & Country Homes	460
124	Gregory Group	459
125	James Lewis Corp	455
126	Iacobucci Organization	447
127	Hylton Enterprises (VA) Inc	445
128	McKellar Dev of La Jolla	438
129	Homestead Land Development	432
129	Inco Homes	432
131	Regency Organization Inc	426
132	Home & Country Inc	425
133	Michaels Group	422
134	Foreston Development Corp	420
135	Fairfield Homes Inc	418
136	McMillin Cos	417
137	Weitzer Communities Ltd	411
138	Barnett-Range Corp	410
139	Coventry Financial Inc	409
140	New Fortis Corp	408
141	Covington Technologies	405
142	American West Development	403
143	Gentry Cos	402
144	Kingsway Construction Co	399
145	Borror Corporation	395
146	Stanley Martin Cos Inc	394
147	Laing (John) Homes Inc	388
148	Sun State Development	380
149	Hills Developers Inc	384
150	Stokes and Co	374
151	Key Company	367
152	Brehm Communities	364
153	Hillside Residential Inc	360
154	Miller and Smith Cos	354
155	Interstate General Co L P	352
156	Century American Corp	348
157	Cooper Communities Inc	344
158	Coleman Co	343
159	Friedman Homes	342
160	Wynne Building Corp	340
161	Canuso (John B) Inc	339
162	Newmark Home Corp	335
163	Mitchell Co	332
164	Segal Associates Inc	330
165	Good Value Homes	324
166	Westfield Development	328
167	David Cutler Group	321
168	Calprop Corp	315
168	Zaring National Corp.	315
168	Sunland Consolidated Inc.	315
171	Doyle Wilson Co.	314
172	Sun City Center Corp.	308
173	Holiday Organization Inc.	307
174	James K. Schuler & Associates	304
175	Homes by Dave Brown	302
176	Homestead Properties	301
176	Acacia Construction Inc	301
178	Davidson Communities	300
179	Beverly Hills Development	297
180	Richmarr Construction Corp.	293
180	West Venture Development Co	293
182	Kennedy Group	289
183	William L. Berry & Co., Inc	288
184	Pembroke Enterprises Inc.	287
185	Williamsburg Properties Inc.	284
185	D & S Co	284
187	Lan Ron Builders	280
188	Christopher Cos	279
189	Signature Homes	277
190	Bovis/Brunning Homes Inc.	275
191	McBride & Son Enterprises, Inc	274
192	Zellner Communities Inc.	270
192	Crosswinds Communities	270
194	Kettler Forlines Inc	269
195	Ciotti Construction Co., Inc	267
196	Van Metre Cos	265
196	Braddock & Logan Associates	265
198	Writer Corp	262
199	Frank Robino Associates Inc	261
200	Sun Lakes Construction Co	259
201	Parker Lancaster Corp	256
202	Lokey Properties	255
203	Community Construction Inc	250
204	Sterling Homes Corp & Subs	249
205	Pennhill Co	246
206	John C Heers Inc	est 243
207	Stonehedge Constr Co Inc	241
208	Greater Midwestern Dev Co	240
209	Woodview Development Co Inc	239
210	Realen Homes	238
211	Estridge Cos	237
212	R B McComic Inc	225
212	Hayden Co	225
212	Harold Moore & Associates Inc	225
212	RWS Development Corp	225
216	Leader Enterprises Inc	223
217	Radnor Homes Inc	221
217	Henry Fischer Builder Inc	221
219	Westway Construction Corp	218
220	Custom Living Communities Inc	212
221	Chrisdon Communities	209
221	Mangano Company Inc	209
223	Burnside Construction Co	208
224	Medici Investment Co	207
225	Capital Homes Maryland Inc	206
226	Mayer Homes	205
227	Signature Properties	203
228	CoastFed Properties	202
229	Harkins Group	201
230	Whitehawk Partnership Inc	200
230	Avatar Holdings Inc	200
232	Gigliotti Corp	193
233	Channing Corporation	191
234	Goodman Homes Inc	190
234	Edward R Carr & Assoc , Inc	190
234	Anastasi Construction Co., Inc	190
237	Hearndon/Rosewell Cos	188
237	Oberer Development Co	188
239	Graham Cos	187
239	Ryder Properties	187
241	Foster Brothers Inc	181
242	Cayman Development	176
242	Corcoran Jennison Cos	176
244	Trilex Properties	175
244	Summerhill Development	175
244	Crowell Industries Inc	175
247	Prairie Development Ltd	174
248	Duffel Financial & Constr Co	167
248	Owen Development	167
248	Raznick & Sons Inc	167
248	Cinco Development Co	167
252	Roy E Daly & Co	165

RANK	COMPANY	UNITS
253	J P Rhoades Development	163
254	Cunningham Barisic Dev Corp	160
255	C-I/Mitchell & Best Co	159
255	Kopf Construction Corp	159
257	Acuff & Rhodes	155
258	Wooldridge Organization	153
259	Joe Keim Builders Inc	151
260	Republic Development Co	150
261	Frankel Enterprises	148
261	Karnell Group	148
263	Coast Construction Co Inc	145
264	Ambassador Real Estate Equities	142
265	M J Peterson Real Estate	140
266	Berkeley Realty Group	137
266	Wellesley Construction Co Inc	137
268	JL Construction Co	134
269	Yusem Homes	132
270	Lundgren Bros Const Inc	130
271	Torino Construction Corp	129
272	Poretsky Building Group Inc	127
273	Pacifica Corp	125
274	Harshbarger Construction Corp	123
275	Zicka Homes Inc	122
276	Sabatello Construction of Fla	120
277	DeLuca Enterprises Inc	118
277	Brindley Constr Co Inc	118
279	Goldrich & Kest Industries	114
280	Elkington Realty & Development	112
281	Joe Harden Builder Inc	110
281	Bukiet Bldg & Mgmt Co	110
283	Drewer Homes	109
283	Red Seal Development Corp	109
285	Holtzman & Silverman Const Co	107
286	Bush Development Corp	104
287	Whitecliff Co Inc	103
287	Braemar Homes	103
289	Strathmore Organization	102
290	Michael T Rose Associates Inc	101
291	LeCesse Corp	93
292	Rocky Gorge Communities	87
293	Calmark Development Corp	85
294	Pinn Brothers Construction	84
295	Chatham Properties Inc	83
296	Socaland Development	78
297	Blitman Building Corp	75
298	Luckey Co	71
299	Evans Withycombe Inc	70
300	S & Z Development Co	66
301	Garden State Land Group	63
302	Heritage Dev Group Inc	60
303	Lomas Group	58
303	Dimcas Inc	58
305	Harlon-East Properties Inc	57
306	Value Group Inc	55
307	Bresler & Reiner Inc	54
307	Fralin and Waldron Inc	54
309	Picerne Properties	52
309	Newport Pacific Development	52
311	Amurcon Corp. of Virginia	50
312	Arker Companies	49
312	Holly Corp.	49
314	Trojan Properties Inc.	44
315	Hunt Properties Inc.	40
315	Edward Rose Building Ent	40
317	DeLuxe Homes of PA., Inc.	36
318	Shelter Canadian Holdings LTD.	32
319	Weinstock Construction Corp.	31
320	Paragon Group Inc.	29
321	Planned Residential Comm. Inc.	26
322	Deck House Inc.	20
322	Robertson Homes	20
324	Shelter Contractors Inc	18
325	Crowell & Baker Const. Co	17
326	Towne Properties	16
326	Douglas Allred Co.	16
328	Lycon Group	10
329	Unique Construction, Inc.	9
330	Morris General Building Co	7
331	Fryling Construction	3
331	Cloverleaf Properties Inc.	3

(Excluding mobile homes and factory-built housing sold as for-sale units.)

The Giant 400 By Rental Housing Production

RANK	COMPANY	UNITS
1	Trammell Crow Residential Co	12,023
2	Lincoln Property Co	4012
3	Fogelman Properties	3914
4	A G Spanos Construction Inc	3569
5	Blazer Building	3200
6	Robertson Homes	3050
7	William Lyon Co	2687
8	Oxford Development Corp	2684
9	Mueller Group	2425
10	Property Company of America	2064
11	Summit Properties	1921
12	Morris General Building Co	1732
13	Calmark Development Corp	1669
14	Dominion Developments Inc	1645
15	Newport Pacific Development	1629
16	Colson & Colson Constr Co	1607
17	Shelter Canadian Holdings LTD	1600
18	Picerne Properties	1572
19	VRI Builders	1542
20	Prometheus Development Co	1528
21	Holtzman & Silverman Const Co	1472
22	Embrey Investments Inc	est 1464
23	United Development Mgmt	1452
24	Edward Rose Building Ent	1400
25	Robert Randall Co	1389
26	Forest City Development	1346
27	Shelter Contractors Inc	1272
28	Centron Construction Corp	est 1250
29	CoastFed Properties	1242
30	Homestead Land Development	1232
31	Sexton Cos	1200
32	Regis Homes Corp	1158
33	Paragon Group Inc	1151
34	Zaremba Development Co	1144
35	Altman Development	1143
36	Primark Corp	1121
37	Epoch Properties Inc	1050
38	LeCesse Corp	1044
39	Evans Withycombe Inc	1000
40	Summerhill Development	995
41	Homestead Group Assoc	984
42	Artery Organization Inc	950
43	Lycon Group	918
44	Benchmark Communities	851
45	Barnett-Range Corp	841
46	Harkins Group	810
47	Harlon-East Properties Inc	800
48	Clark-Wayland-Tarver Inc	est. 800
49	Lewis Homes Group of Cos	764
50	Harold Moore & Associates Inc	714
51	Luckey Co	691
52	Engineered Concepts Inc	622
53	Goldrich & Kest Industries	592
54	J L Mason Group, Inc	591
55	Brindley Constr Co Inc	589
56	Foreston Development Corp	580
57	A-M Homes	577
58	Hunt Properties Inc	574
59	Holly Corp	568
60	Lokey Properties	556
61	Wallick Construction Co	549
62	Cloverleaf Properties Inc	549
63	Fryling Construction	531
64	San-T Development Corp	504
65	Bozzuto & Associates	494
66	Lockwood Group	482
67	Pacific Scene Inc	472
68	Grupe Co	439
69	Frank Robino Associates Inc	410
70	Douglas Allred Co	403
71	Ira L Brummell Dev Co	400
71	JL Construction Co	400
71	John Cooley Co	400
74	Corcoran Jennison Cos	396
75	Tompkins Heritage Homes	380
76	Shapell Industries	372
77	Shea Homes	354
78	Unique Construction Inc	350
79	Amurcon Corp of Virginia	340
80	Roberts Properties Inc	328
81	M J Peterson Real Estate	316
82	Kravco Company	274
83	Fralin and Waldron Inc	267
84	Hills Developers Inc	264
84	PHM Corp.	264
86	Mitchell Co	252
87	Roy E Daly & Co	247
88	Amir Development Co.	246
89	Weyerhaeuser Real Estate Co.	240
90	Kaplan Organization	239
91	Valencia Co.	234
92	Oberer Development Co	223
93	Anastasi Construction Co., Inc	208
94	Red Seal Development Corp.	204
95	Drees Co.	202
96	Park Place Group	192
96	Towne Properties	192
98	Wellesley Construction Co	180
99	Harshbarger Construction Corp	179
100	Home Capital Development Group	177
101	Oriole Homes Corp.	160
102	Lusk Co.	158
103	Blitman Building Corp.	150
104	Torino Construction Corp.	127
105	Century American Corp.	122
106	James Lewis Corp.	110
107	Hylton Enterprises (VA) Inc	105
108	Interstate General Co.	104
109	Graham Cos.	100
110	Covington Technologies	96
110	Taylor Morley Simon Inc.	96
112	GlenFed Development Corp.	81
113	Winncrest Homes	78
114	McBail Co	64
115	Woodview Development Co.	58
116	C-I/Mitchell & Best Co.	47
117	RecreActions Group	41
118	Silver Cos.	40
118	Landstar Homes	40
120	Kimball Hill Inc	36
121	Sun State Development	10
122	Stonehedge Construction	4

(Excluding mobile homes and factory-built housing used as rentals.)

THE 400

Headquarters States: California Is Home To Most Giants

Note: Companies are not listed by size.

ALABAMA

1. Mitchell Co.

ARKANSAS

1. Cooper Communities Inc.
2. Fairfield Communities Inc.

ARIZONA

1. Clark-Wayland-Tarver Inc.
2. Continental Homes Holding Co.
3. Coventry Financial Inc.
4. Emerald Homes L. P.
5. Estes Construction Co.
6. Evans Withycombe Inc.
7. Homes by Dave Brown
8. Sun Lakes Construction Co.
9. UDC-Universal Development L.P.
10. Del E. Webb Communities Inc.

CALIFORNIA

1. Douglas Allred Co.
2. Acacia Construction Inc.
3. Ahmanson Developments Inc.
4. A-M Homes
5. Amir Development Co.
6. Anastasi Construction Co. Inc.
7. Anden Group
8. Baldwin Co.
9. Barnett-Range Corp.
10. Barratt American Inc.
11. Braddock & Logan Associates
12. Braemar Homes
13. Bramalea California Inc.
14. Brehm Communities
15. Ira L. Brummell Dev. Co.
16. Buie Corp.
17. California Communities Inc.
18. Calmark Development Corp.
19. Calprop Corp.
20. Cayman Development
21. Century American Corp.
22. Century Homes
23. Circle T Corp.
24. Citation Builders
25. Coast Construction Co. Inc.
26. CoastFed Properties
27. Coleman Co.
28. Community Construction Inc.
29. Condiotti Enterprises Inc.
30. Covington Technologies
31. Crowell Industries Inc.
32. Cunningham Barisic Dev. Corp.
33. D & S Co.
34. Roy E. Daly & Co.
35. Davidson Communities
36. Dividend Development Corp.
37. Duffel Financial & Constr. Co.
38. Dunmore Homes Inc.
39. H.C. Elliott Inc.
40. Fieldstone Co.
41. First Financial Group
42. Fleetwood Enterprises
43. Forecast Mortgage Corp.
44. Forest City Development
45. Friedman Homes
46. GlenFed Development Corp.
47. Golden West Homes
48. Goldrich & Kest Industries
49. Gregory Group
50. Griffin Homes
51. Grupe Co.
52. Guerdon Industries Inc.
53. Harshbarger Construction Corp.
54. Hillside Residential Inc.
55. Hofmann Co.
56. Home & Country Inc.
57. Home Capital Development Group
58. Homestead Development Co Inc.
59. Homestead Group Assoc.
60. Homestead Land Development
61. Inco Homes
62. JL Construction Co.
63. John C. Heers Inc.
64. Kaufman and Broad Home Corp.
65. Kingsway Construction Co.
66. Laing (John) Homes Inc.
67. Lan Ron Builders
68. Larwin Construction Co.
69. Leisure Technology Inc.
70. Lewis Homes Group of Cos.
71. Lomas Group
72. Luckey Co.
73. Lusk Co.
74. Lycon Group
75. William Lyon Co.
76. Mangano Company Inc.
77. McBail Co.
78. R.B. McComic Inc.
79. McKellar Dev. of La Jolla
80. McMillin Cos.
81. Medici Investment Co.
82. Morris General Building Co.
83. Newport Pacific Development
84. Owen Development
85. Pacific Scene Inc.
86. Pacifica Corp.
87. Paragon Homes Inc.
88. Park Place Group
89. Pennhill Co.
90. J.M. Peters Co.
91. Pinn Brothers Construction
92. Premier Homes
93. Prometheus Development Co.
94. Raznick & Sons Inc.
95. RecreActions Group
96. Regis Homes Corp.
97. Republic Development Co.
98. J.P. Rhoades Development
99. Robertson Homes
100. Ryder Properties
101. San-T Development Corp.
102. Shapell Industries
103. Shea Homes
104. Signature Homes
105. Signature Properties
106. Silvercrest Mfgd. Housing Inc.
107. Socaland Development
108. A.G. Spanos Construction Inc.
109. Standard Pacific L.P.
110. Sterling Homes Corp. & Subs
111. Summerhill Development
112. Sunland Consolidated Inc.
113. Sunrise Co.
114. Kathryn G. Thompson Dev. Co.
115. Torino Construction Corp.
116. Trilex Properties
117. Trojan Properties Inc.
118. Unique ConstructionInc.
119. Urban West Communities
120. Valencia Co.
121. Warmington Homes
122. Watt Industries Inc.
123. Weinstock Construction Corp.
124. West Venture Development Co.
125. Whitecliff Co. Inc.
126. Whitehawk Partnership Inc.
127. George Wimpey Inc.
128. Winncrest Homes
129. Woodcrest Development Inc.
130. Woodview Development Co. Inc.
131. Zeliner Communities Inc.

COLORADO

1. M.D.C. Holdings Inc.
2. Writer Corp.

CONNECTICUT

1. Heritage Dev. Group Inc.
2. Stone Gate Development Corp.

WASHINGTON D.C.

1. Bresler & Reiner Inc.
2. Richmarr Construction Corp.

DELAWARE

1. Frank Robino Associates Inc.
2. Nanticoke Homes Inc.

FLORIDA

1. Altman Development
2. Ambassador Real Estate Eqities
3. Arthur Rutenberg Corp.
4. Arvida/JMB Partners L.P.
5. Avatar Holdings Inc.
6. Beverly Hills Development
7. Burg & DiVosta
8. Catalina Homes
9. Cenvill Development Corp.
10. Channing Corporation
11. Chrisdon Communities
12. Dimcas Inc.
13. Engle Group Inc.
14. Epoch Properties Inc.
15. General Development Corp.
16. Graham Cos.
17. Gulfstream Land & Dev. Corp.
18. Holiday Builders Inc.
19. Homes of Merit Inc.
20. Homestead Properties
21. J.L. Mason Group Inc.
22. Jim Walter Homes Inc.
23. Landstar Homes
24. Lennar Corp.
25. Levitt Corporation
26. Orange Blossom Hills Inc.
27. Oriole Homes Corp.
28. Palm Coast Construction Co.
29. Regency Organization Inc.
30. Sabatello Construction of Fla.
31. Stokes and Co.
32. Sun City Center Corp.
33. Sun State Development
34. Tompkins Heritage Homes
35. Weitzer Communities Ltd.
36. Wynne Building Corp.
37. Yusem Homes

GEORGIA

1. Beazer Properties Inc.
2. Bovis/Brunning Homes Inc.
3. Chatham Properties Inc.
4. Continental Financial Corp.
5. Engineered Concepts Inc.
6. Horton Homes Inc.
7. John Wieland Homes
8. L.J. Hooker Homes
9. Ridgeway Development Co.
10. Roberts Properties Inc.

HAWAII

1. Gentry Cos.
2. James K. Schuler & Associates
3. Oceanic Properties Inc.

ILLINOIS

1. Burnside Construction Co
2. Cambridge Homes Inc
3. Greater Midwestern Dev. Co
4. Hoffman Group Inc
5. Joe Keim Builders Inc
6. Kennedy Group
7. Kimball Hill Inc
8. Lexington Development Corp
9. Pasquinelli Construction Co
10. Prairie Development Ltd
11. Red Seal Development Corp
12. RWS Development Corp
13. S & Z Development Co
14. Town & Country Homes
15. United Development Mgmt. Co
16. Westfield Development
17. Westway Construction Corp

INDIANA

1. Cloverleaf Properties Inc
2. Coachmen Housing
3. Commodore Corp
4. Estridge Cos
5. Liberty Homes Inc
6. National Enterprises Inc
7. Patriot Homes Inc
8. Schult Homes Corp
9. Sexton Companies
10. Skyline Corp

KANSAS

1. Acuff & Rhodes

KENTUCKY

1. Drees Co
2. Henry Fischer Builder Inc

MASSACHUSETTS

1. Corcoran Jennison Cos
2. Deck House Inc

MARYLAND

1. Artery Organization Inc
2. Bozzuto & Associates
3. C-I/Mitchell & Best Co
4. Capital Homes Maryland Inc
5. Crowell & Baker Const. Co
6. Diversified Housing Corp
7. Harkins Group
8. Interstate General Co. L.P.
9. Kettler Brothers Inc
10. Kettler Forlines Inc
11. Michael T. Rose Associates Inc
12. North American Housing Corp
13. Oxford Development Corp
14. Ryland Group Inc
15. Washington Homes Inc
16. William L. Berry & Co. Inc

MICHIGAN

1. Champion Home Builders Co
2. Crosswinds Communities
3. Edward Rose Building Ent
4. Fryling Construction
5. Holtzman & Silverman Const. Co
6. John Cooley Co
7. PHM Corp
8. Wellesley Construction Co. Inc

MINNESOTA

1. Good Value Homes
2. Lundgren Bros. Inc

MISSOURI

1. Cinco Development Co
2. Hayden Co
3. Jones Co
4. Lockwood Group
5. Mayer Homes
6. McBride & Son Enterprises Inc
7. Taylor Morley Simon Inc

NORTH CAROLINA

1. Harlon-East Properties Inc
2. Hunt Properties Inc
3. Key Company
4. New Fortis Corp
5. Oakwood Homes Corp
6. Summit Properties

NEW JERSEY

1. Berkeley Realty Group
2. Bukiet Bldg. & Mgmt. Co
3. Calton Inc
4. Canuso (John B.) Inc
5. Custom Living Communities Inc
6. Garden State Land Group
7. Hovnanian Enterprises Inc
8. International American Homes
9. Kaplan Organization
10. Karnell Group
11. Planned Residential Comm. Inc
12. Segal Associates Inc
13. Union Valley Corp
14. Value Group Inc
15. Weingarten Siegel Group Inc

NEVADA

1. American West Development
2. Di Loreto Const. & Dev. Inc

NEW YORK

1. Amrep Corp
2. Arker Cos
3. Blitman Building Corp
4. Foreston Development Corp
5. Holiday Organization Inc
6. LeCesse Corp
7. Michaels Group
8. M.J. Peterson Real Estate
9. Strathmore Organization

OHIO

1. Benchmark Communities Inc
2. Borror Corporation
3. Hills Developers Inc
4. Kopf Construction Corp
5. Oberer Development Co
6. Towne Properties
7. M/I Schottenstein Homes Inc
8. Wallick Construction Co
9. Williamsburg Properties Inc
10. Zaremba Development Co
11. Zaring National Corp
12. Zicka Homes Inc

OKLAHOMA

1. Property Company of America

OREGON

1. Colson & Colson Constr. Co
2. Robert Randall Co

PENNSYLVANIA

1. Ciotti Construction Co. Inc
2. Contempri Homes Inc
3. David Cutler Group
4. DeLuca Enterprises Inc
5. DeLuxe Homes of PA. Inc
6. FPA Corp
7. Frankel Enterprises
8. Gigliotti Corp
9. Hughes-Patwil Homes
10. Iacobucci Organization
11. James Lewis Corp
12. Orleans Construction Corp
13. Penn Lyon Homes
14. Poloron Homes of Pennsylvania
15. Realen Homes
16. Ritz-Craft Corp. of PA Inc
17. S & A Custom Built Homes Inc
18. Toll Brothers Inc
19. Wooldridge Organization

RHODE ISLAND

1. Picerne Properties

SOUTH CAROLINA

1. Joe Harden Builder Inc
2. Shelter Contractors Inc
3. Stonehedge Constr. Co. Inc

TENNESSEE

1. Brindley Constr. Co. Inc
2. Clayton Homes Inc
3. Elkington Realty & Development
4. Fogelman Properties
5. Harold Moore & Associates Inc
6. Leader Enterprises Inc
7. Radnor Homes Inc

TEXAS

1. Blazer Building
2. Cavalier Homes Inc
3. Centex Corp
4. Doyle Wilson Co
5. Embrey Investments Inc
6. Friendswood Development Co
7. Fuqua Homes Inc
8. General Homes Corp
9. Goodman Homes Inc
10. Hunt Building Corp
11. Kravco Company
12. Lincoln Property Co
13. Lokey Properties
14. Bill Milburn Co
15. Newmark Home Corp
16. Palm Harbor Group
17. Paragon Group Inc
18. Rayco Inc. (Ellison Homes)
19. Redman Homes
20. Trammell Crow Residential Co
21. U.S. Home Corp
22. VRI Builders
23. Weekley Homes Inc

VIRGINIA

1. Amurcon Corp. of Virginia
2. Bush Development Corp
3. Edward R. Carr & Assoc. Inc
4. Christopher Cos
5. Drewer Homes
6. Fairfield Homes Inc
7. Foster Brothers Inc
8. Fralin and Waldron Inc
9. Hearndon/Rosewell Cos
10. Hylton Enterprises (VA) Inc
11. Long Signature Homes Inc
12. Miller and Smith Cos
13. Milton Co
14. Nationwide Homes Inc
15. NVRyan L. P.
16. Parker Lancaster Corp
17. Pembroke Enterprises Inc
18. Poretsky Building Group Inc
19. Rocky Gorge Communities
20. Silver Cos
21. Stanley Martin Cos. Inc
22. Van Metre Cos

WASHINGTON

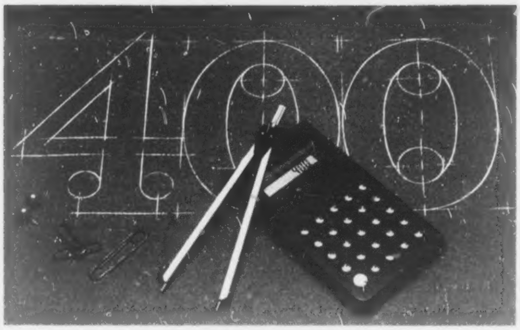
1. Centron Construction Corp
2. Dominion Developments Inc
3. Holly Corp
4. Lindal Cedar Homes Inc
5. Mueller Group
6. Primark Corp
7. Weyerhaeuser Real Estate Co

WISCONSIN

1. Wausau Homes Inc
2. Wick Building Systems Inc

CANADA

1. Coscan Development Corp
2. Shelter Canadian Holdings



Trammell Crow Heads List, Texas Builders Take Top 3 Spots

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
1 $3,018,500	3	5 12932 units	**Trammell Crow Co.** 2001 Ross Ave Dallas, Texas 75201 J. Ronald Terwilliger	Privately held company in calendar year 1988 built and sold 203 single-family detached homes for $33,500,000 and 706 single-family attached units for $137,700,000. The firm also built 2051 apartment units for investors. These had a market value of $76,825,000. It also built 9972 apartments for its own investment. These had a market value of $543,500,000. The firm's non-res construction had a market value of $1,400,000,000. Land sales brought in $16,500,000. Rents and management fees totaled $536,200,000. Income from existing project sales, construction, development, interest and miscellaneous sources totaled $274,275,000. The detached product averaged 2500 square feet in size and sold for an average of $150,000. The attached product contained 2000 square feet of living space and sold for $195,000. The rentals contained 850 square feet of space and rented for $600 a month. Families accounted for 75% of the sales. Empty nesters accounted for 20% and young marrieds, 5%. Firm is active throughout the country: Northeast (9%), Mid-Atlantic (15%), Southeast (24%), Fla. (11%), Midwest (11%), South Central (10%), Colo. (1%), Southwest (10%), Northwest (8%) and Calif. (1%). Firm subs out 81 to 99% of its work and has more than 100 full-time employees.
2 $2,126,997	1	25 4012 units	**Lincoln Property Co.** 500 N. Akard Dallas, Texas 75201 A. Mack Pogue	This privately held company in calendar year 1988 built 4012 apartment units for its own investment. These had a market value of $265,414,000. Non-res construction by the company had a market value of $401,773,000. Land sales produced $81,356,000 in income. Rents and management fees totaled $642,094,000. Building sales amounted to $736,360,000. The apartment units had an average of 750 square feet of space and rented for $500 a month. Company, which subs out all of its work, is active in Calif. (33%), Va. (17%), Wash. (15%), Ill. (11%), Fla. (9%), Pa. (7%), R.I. (5%) and Ga. (3%). Recent projects are in Coral Springs, Fla., Tampa, Atlanta, Philadelpha, Warwick, R.I., Schaumburg, Ill., McLean, Va., Larkspur, Calif., Diamond Bar, Calif., East Bay area, Calif., Aliso Viejo, Calif., and 2 in Bellevue, Wash. Firm also is involved in shopping centers, warehouses and office buildings. It has more than 100 full-time employees.
3 $1,845,484	2	12 6539 units	**Centex Corp.** 3333 Lee Parkway Dallas, Texas 75219 Laurence E. Hirsch	Publicly held corporation (NYSE) in fiscal year ended 3/31/89 built and sold 6539 for-sale housing units for $769,364,000. Non-res construction had a value of $924,798,000. Income from savings and loan operations as well as product sales was $151,322,000. Company is active in the West (15%), Midwest (9%), East (22%), Southeast (31%) and Southwest (22%). Subsidiary operations include Centex Real Estate Corp./Centex Homes which operates in 30 markets; J.W. Bateson Co., Dallas; Frank J. Rooney Co., Ft. Lauderdale, Fla.; M.H. Golden Co., San Diego; Centex-Rodgers Construction Co., Nashville; Centex Construction Co., Merrifield, Va., and Eugene Simpson & Brother, Alexandria, Va., all general construction firms. Company has begun operations in Columbus, Ohio, and San Antonio, Texas. Non-res activity includes construction of office buildings, hotels/motels, medical buildings and prisons. Firm has more than 100 full-time employees. Net income is 2.1% of total dollar volume.
4 $1,401,000	7	9 8082 units	**William Lyon Cos.** 19 Corporate Plaza Newport Beach, Calif. 92660 William Lyon	Privately held company, which has the Presley Companies as a subsidiary, built and sold 4091 single-family detached homes for $700,000,000 and 1304 single-family attached units for $161,000,000. It also built 2687 apartment units for its own investment. These had a value of $239,000,000. Non-res market value was $74,000,000. Land sales totaled $185,000,000, rents and management fees totaled $17,000,000. Income from golf and club activities and other sources totaled $25,000,000. Figures are for calendar year 1988. The detached product contained an average of 1700 square feet of living space and sold for an average of $160,000. Company is active in Calif. (90%), Fla. (2%), Ariz. (3%), N.M. (3%) and elsewhere, (2%). It subs out all of its work and has more than 100 full-time employees.
5 $1,321,275	5	8 8556 units	**NVR L.P.** 7601 Lewinsville Rd McLean, Va. 22102 Dwight C. Schar	Publicly held master-limited partnership listed on the American Stock Exchange built and sold 8556 for-sale housing units in 1988. Net profit was 2.5 percent of revenues. Changed name from NVRyan L.P. and acquired H.R. Remington Properties of Calif. in 1988. Average home price was $129,500. Total revenues from home building and land development operations were $1,150,496,000. Interest income was $145,563,000, mortgage banking fees totaled $24,249,000 and other income was $967,000. Of the company's 8556 units, 8471 were panelized units manufactured by the company. Active in Calif., Fla., Ga., Ind., Ky., Md., N.J., N.Y., N.C., Ohio, Pa., S.C., Va. Subsidiaries include NVHomes, Ryan Homes, NVClassics. Partial owner of Cross Builders and Goodman Homes, custom builders in the Washington, D.C. metro area. Builder is expanding its panel-home operations and plans to sell to outside builders.

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
6 **$1,271,875**	6	6 9354 units	**Ryland Group Inc.** 10221 Wincopin Circle Columbia, Md. 21044 Charles E. Peck	Publicly held corporation (NYSE) in calendar year 1988 built and sold 9354 stick-built, panelized and modular single-family houses for $880,684,000. Of these 1781 were modular units and 4154 were panelized. Income from financial services and limited purpose builds in Calif. under the names M.J. Porock and Larchmont Homes. Subsidiaries totaled $396,013,000. Net income was 3.6% of the total dollar volume. The single-family detached homes had an average of 1905 square feet of living space and sold for an average of $127,771. The attached units had 1239 square feet of space and sold for $107,153. Company is active in Md. (25%), Va. (11%), N.C. (10%), Ohio (10%), Texas (10%), S.C. (9%), Fla. (8%), as well as in Calif., Conn., Del., Ga., N.J., N.Y., Pa. and Washington D.C. Firm subs out 81 to 99% of its work and has more than 100 full-time employees.
7 **$1,179,164**	9	10 7249 units	**PHM Corp.** 33 Bloomfield Hills Parkway, Suite 200 Bloomfield Hills, Mich. 48013-2155 James Grosfeld	This publicly held corporation (NYSE) builds through its subsidiaries: Pulte Homes of Michigan Corp., Pulte Home Corp. of Texas and Pulte Home Corp. In calendar year 1988 the firm built and sold 5037 single-family detached homes and 1948 single-family attached units and 264 apartment units for investors for revenues of $834,227,000. Interest income totaled $344,937,000. Net income was 2.7% of the total dollar volume. The company operates in Ariz., Colo., Calif., Texas, Ill., Md., Mich., Va., Fla., Ga., N.C. PHM's annual report stated the company's sales in 1988 increased 6% to $834,227,000 from $785,376,000 in 1987. The sales revenue increase in 1988 was due to a 16% increase in the average sales price of a unit to $121,000, partially offset by a reduction in unit volume, principally in Texas and Colo.
8 **$903,399**	12	21 4836 units	**Kaufman and Broad Home Corp.** 11601 Wilshire Blvd. Los Angeles, Calif. 90025 Bruce Karatz	Publicly held company (NYSE) in fiscal year ended 11/30/88 built and sold 4836 single-family detached homes for $693,815,000. Its non-residential construction had a market value of $186,892,000. Land sales brought in $18,325,000. Income from other sources was $4,367,000. Net income was 5.3% of total dollar volume. Company is active in Calif. (63%), Canada (8%) and France (29%). It also is involved in office buildings and retirement complexes. Company subs out all of its work and has more than 100 full-time employees.
9 **$840,597**	8	22 4703 units	**M.D.C. Holdings Inc.** 3600 South Yosemite Street Denver, Colo. 80237 Larry A. Mizel	Publicly held corporation (NYSE) in calendar year 1988 built and sold 4703 single-family detached homes for $640,677,000. Income from land sales was $75,101,000. Other sources of income—interest, mortgage banking services and miscellaneous—totaled $124,819,000. The houses had an average sales price of $136,200. Company was active in Colo., Ariz., Fla., Texas, Nev., Ga., Calif., Md., Del. and Va. The company's Form 10-K stated that it had incurred a net loss of $31,370,000. This loss, the report stated, resulted primarily from a restructuring of the company's activities and was attributable to, among other things: A $28,278,000 pretax loss from the sale of its Tampa, Orlando, Atlanta, Tucson and Colorado Springs operations and the closing of its Austin and San Antonio homebuilding and mortgage operations and the substantial reduction of its operations in Dallas and Phoenix and to a lesser extent, its operations in Denver. Also, a $49,681,000 pretax loss that resulted from a $14,791,000 loss from the sale of substantially all of MDC's portfolio of investments and marketable securities; a $20,540,000 loss as a result of the write-off of certain other investments, and the establishment of a $14,350,000 valuation reserve to write down to market value its remaining investments and marketable securities.
10 **$819,000**	4	18 5400 units	**Weyerhaeuser Real Estate Co.** Building QB-6 Tacoma, Wash. 98477 John W. Creighton, Jr.	The publicly held company (NYSE) is a subsidiary of the Weyerhaeuser Co. of Tacoma, Wash. It has 12 building and development subsidiaries across the country. In fiscal year ended 12/25/88, the firm built and sold 4600 single-family detached homes for $562,000,000 and 560 single-family attached units that sold for $47,000,000. It also built 240 apartment units for its had a market value of $84,000,000. Income from land sales was $70,000,000, rents and management fees, $16,000,000 and land development, $29,000,000. Net income was 7% of the total dollar volume. The firm had operations in Fla. (12%), Texas (8%), Calif./Nev. (37%), N.J. (5%), N.C. (11%), Washington D.C. (22%) and Wash. (3%). It also is involved in shopping centers, warehouses, industrial plants, religious buildings, retail stores, office buildings, hotels/motels, restaurants, and recreational, medical and educational buildings. Firm has more than 100 full-time employees.
11 **$746,489**	14	43 2431 units	**Shapell Industries** 8383 Wilshire Blvd., Suite 700 Beverly Hills, Calif. 90211 Nathan Shapell	In calendar year 1988 this privately held company built and sold 1149 single-family detached homes for $366,120,478 and 910 single-family attached units for $132,552,504. It also built 372 apartment units for its own investment. These had a market value of $37,873,320. Income from land sales was $11,654,104. Income from rents and management fees was $61,413,524. Investment income was $33,095,898. Company built 372 hi-rise units for $92,300,000. Cable TV service income was $2,195,076. Firm's annual report does not include revenue for own investment building. The detached product had an average of 3500 square feet of living space and sold for $318,500. The attached units had 2200 square feet of space and sold for $150,000. The condominium apartments averaged 1500 square feet in size and sold for $247,500. The firm builds solely in Calif. and has 55 projects under way. It also is involved in shopping centers. It subs out all of its work and has more than 100 full-time employees.
12 **$735,807**	10	15 6178 units	**U.S. Home Corp.** P.O. Box 2863 Houston, Texas 77252 Robert J. Strudler	This publicly held company in calendar year 1988 built and sold 4223 single-family detached homes for $466,532,000 and 1955 single-family attached units for $170,412,000. Income from land sales was $27,753,000. Income from joint ventures/financial services and other sources totaled $71,110,000. Net income was .007% of total dollar volume. Firm is active in Fla., Calif., Ariz., Texas, Minn., Md., N.J., Nev., Colo., N.M., Ga., Va., N.C., among others. Company's annual report stated that its strongest markets were in Fla., Calif. and the Northeast. Sales in Calif., where it had expanded into new markets, increased 24% in 1988 from revenues of $74 million in 1987 to $92 million in 1988. In 1988, approximately 33% of its homes were sold to move-up and second-time buyers, 37% to first-time buyers and 30% to retirement buyers. The company also develops and sells land and finished building sites to other builders. It also provides mortgage banking services.
13 **$696,000**	17	51 2033 units	**Watt Industries Inc.** 2716 Ocean Park Blvd. Santa Monica, Calif. 90406 Raymond A. Watt	Privately held company. In calendar year 1988, it built and sold 1485 single-family detached homes and 548 single-family attached units for a total of $532,000,000. Income from land sales was $56,000,000. Income from rents and management fees was $48,000,000 and from other sources including hotel operations, $28,000,000, interest, $20,000,000 and other $12,000,000. The company operates in Calif. (93%), Ariz. (4%) and Nev. (3%). It also is involved in shopping centers, warehouses and office buildings. It subs out all of its work and has approximately 750 full-time employees.

THE 400

Standard Pacific jumps into the Top 20, Anden Group moves up 38 places

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
14 $535,300	19	1 36703 units	**Fleetwood Enterprises** P.O. Box 7638 Riverside, Calif. 92523 Glenn F. Kummer	Publicly held corporation (NYSE) in fiscal year ended 4/30/89 manufactured 36,703 mobile homes. These had a market value of $535,300,000. Recreational vehicle sales totaled an additional $1.05 billion. Total company sales were reported at $1,619,999,000. The company's supply and finance subsidiaries contributed $29,000,000 for the year, up from $12,600,000 the previous year. Company opened new plant in Garrett, Ind., in January, 1989, and dedicated it in April. Plant joins Fleetwood's central division that includes plants in Waco, Texas, Lexington, Miss., and Westmoreland, Tenn. Overall, firm operates 47 manufacturing plants in 17 states and Canada and employs 10,000 persons.
15 $522,133	23	27 3610 units	**Lewis Homes Group Of Cos.** Post Office Box 670 Upland, Calif. 91785 Ralph M. and Goldy S. Lewis	Privately held company in calendar year 1988 built and sold 2380 single-family detached homes for $350,837,689 and 466 single-family attached units for $57,367,269. It also built 764 apartment units for its own investment. These had a market value of $53,622,500. Non-residential construction value totaled $21,946,998. Income from land sales was $7,803,647; from rents and management fees, $24,327,793 and interest/income on installment sales, $6,227,460. The company operates in Calif. (70%) and Nev. (30%). Its detached product has an average of 1700 square feet of space and sells for $147,000. The attached units have 1300 square feet of space and sell for $123,000. The apartments average 850 feet and rent for an average of $650 a month. The company emphasizes developing investment properties for its own portfolio. It is active in in-fill areas. It is increasing its activities in master-planned communities, both as a master developer and as a merchant builder. It expects to do more joint ventures in 1989 as financial partner to smaller builders and as builder-partner with major financial institutions. The company subs out 81-99% of its work and has more than 100 full-time employees.
16 $511,461	20	85 1288 units	**General Development Corp.** 1111 S. Bayshore Dr. Miami, FL 33131 D.F. Brown	In calendar year this publicly held company (NYSE) built and sold 1288 housing units for $110,796,000. Non-residential construction market value was $30,142,000. Income from land sales was $224,205,000. Income from its utilities arm totaled $31,683,000. Income from timeshare operations was $57,176,000. Interest income was $57,459,000. Net income was 4.4% of total dollar volume. Company has nine Fla. communities and one at Cumberland Cove, Tenn. In May of 1989 it completed the purchase of Glen Ivy Financial Group of Corona, Calif., a leading vacation timesharing company in the Western United States. General Development said that with this acquisition it has become the largest timesharing company in the country. Its annual report stated that the company's homesite sales achieved record levels for the fifth consecutive year.
17 $492,490	28	58 1756 units	**Standard Pacific, L.P.** 1565 W. MacArthur Costa Mesa, Calif. 92626 Ronald R. Foell	This publicly held limited partnership in calendar year 1988 built and sold 1756 single-family detached houses. They represented a sales volume of $425,802,128. The company's manufacturing and interest income totaled $66,688,375. Its net income was 15.3 percent of the total dollar volume. The firm is active in Calif. (97%), and Texas (3%), and is building 43 residential projects in the major metro areas of Calif. and is doing six projects in Houston and Dallas. Average price of its houses is $240,569. All of its work is subbed out. The company employs more than 100 persons fulltime.
18 $482,607	25	80 1365 units	**Lusk Co.** 17550 Gillette Ave. Irvine, Calif. 92713 John D. Lusk	This privately held company in calendar year 1988 built and sold 962 single-family detached homes for $170,396,000 and 245 single-family attached homes for $40,430,000. It also built 158 apartment units for its own investment. These had a market value of $13,430,000. Its non-residential construction had a value of $35,306,000. Income from land sales totaled $102,860,000; rents and management fees, $57,232,000 and interest, home furnishings and so forth, $62,953,000. Firm is active in Calif. (95%) and Hawaii (5%). Projects are under way in San Diego, Fremont, Roseville, San Clemente, Oceanside and Rocklin, Calif., and Pearl City, Hawaii. The company's detached homes average 2000 square feet in size and sell for an average of $325,000. The attached homes are 1200 feet in size and sell for $145,000. Non-res activity includes warehouse, industrial plant and office and recreational building construction. Between 81 and 99% of its work is subbed out. Firm has more than 100 employees.
19 $478,000	22	26 3914 units	**Fogelman Properties** 5400 Poplar Memphis, Tenn. 38119 Avron B. Fogelman	Privately held company in calendar year 1988 built 566 apartment units for investors. These had a market value of $30,000,000. It also built 3348 apartment units for its own investment. These had a value of $159,000,000. Company was involved in eight rehab jobs that had a value of $14,000,000. Non-residential construction value of $22,000,000. Income from rents and management activity was $72,000,000. Syndication, mortgage and insurance activities brought in another $181,000,000. The rental units averaged 885 square feet in size and rented for $485 a month. Company has Independence Village housing for the elderly projects in Winston-Salem, N.C., and Lansing, Mich. Another housing for the elderly project is in Palm Harbour, Fla. Firm's non-res construction includes shopping centers, retail stores, hotels/motels, restaurants and recreational buildings. It subs out 81 to 99% of its work. It has more than 100 full-time employees.
20 $471,767	—	134 902 units	**Home Capital Development Group** 707 Broadway 10th Floor San Diego, Calif. 92101 Jack Roach	This subsidiary of Home Federal Savings and Loan built 725 houses and 177 apartment units for its own portfolio in 1988 for sales of $271,200,000. Land sales were $169,421,000, rental income/management fees were $17,532,000 and interest and other income was $13,614,000. Active in Calif. (89%), Fla. (10%) and Ariz. (1%). Firm has 51 to 100 employees. In addition, builder is most active in joint ventures with other builders, including some of those listed in this report. Those joint venture deals involve 665 other units. In all, company's total real estate revenues were $502 million.
21 $450,887	59	52 2030 units	**Anden Group** 15260 Ventura Blvd. Sherman Oaks, Calif. 91403 Eugene Rosenfeld	Privately held company in calendar year 1988 built and sold 1587 single-family detached homes for $292,986,000 and 443 single-family attached homes for $59,556,000. Land sales accounted for $98,345,000 in income. Firm's detached homes had an average of 2650 square feet of living space and sold for an average of $184,600. Its attached units had 1300 square feet of space and sold for an average of $134,400. Company is active in Calif. (64%), Fla. (3%), Ill. (8%), Va. (1%), Ariz. (1%), N.J. (3%) and France (20%). It subs out 81 to 99% of its work. It employs more than 100 persons.
22 $428,000	36	45 2403 units	**Citation Builders** 17731 Irvine Blvd. Tustin, Calif. 92680 A. Allen, D. Cheney, S. Schott	Privately held company in calendar year 1988 built and sold 1758 single-family detached homes for $330,000,000 and 645 attached homes for $98,000,000. Its detached homes sold for an average of $185,000, the attached homes, $151,000. Company active solely in Calif., subs out 81 to 99% of its work and has more than 100 full-time employees.

Lennar Corp. sold 4131 homes, multifamily Giant Paragon built 1180 units

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
23 $408,767	21	74 1444 units	**CoastFed Properties** 9090 Wilshire Blvd Beverly Hills, Calif 90211 Alan I. Casden	In fiscal year ended 10/31/88 this privately held company built and sold 202 single-family detached houses for $88,500,000 and built 1242 apartment units for investors. The units had a value of $185,267,000. Rent and management fee income totaled $135,000,000. Company is actively solely in Calif. Its houses had an average of 2600 square feet of space and sold for an average of $150 a square foot. Company also constructs office buildings, subs out all of its work and has more than 100 employees.
24 $407,612	27	55 1836 units	**Artery Organization Inc.** 7200 Wisconsin Ave Bethesda, Md. 20814 Henry H. Goldberg	Privately held company in fiscal year ended 10/31/88 built and sold [illegible]2 single-family detached houses for $5,696,000 and 704 single-family attached homes for $72,305,000. It also built 950 apartment units for its own investment. These had a value of $66,114,000. Company also manufactured 150 single-family panelized units. These had a value of $2,000,000. Company also built 143 high-rise units that had a value of $16,530,000. It also completed two rehab jobs involving a total of 765 units. These had a value of $89,447,000. Non-res activity had a value of $33,402,000. Other income came from land sales, $5,771,000; rents and management fees, $107,085,000; loan origination and servicing fees, $9,262,000. Firm is active in Va. (55%) and Md. (45%). It also constructs office and recreational buildings, subs out all of its work and has more than 100 full-time employees.
25 $402,090	26	24 4131 units	**Lennar Corp.** 700 N.W. 107th Ave Miami, Fla. 33172 Leonard Miller	Publicly held corporation (NYSE) in fiscal year ended 11/30/88 built and sold 1630 single-family detached houses for $159,181,000 and 2501 single-family attached homes for $181,210,000. The firm's rehab/remodeling work had a market value of $918,000. Non res construction had a value of $3,106,000. Other income included land sales, $24,454,000; rents and management fees, $15,091,000; interest, $7,223,000; other, $10,907,000. Total figure includes hotel construction, apartment rehab work and Lennar's 50% interest in joint venture home sales. Net income was 7.3% of total dollar volume. Firm builds 95% in Fla., 4.5% in Ariz. and 0.2% in other states. It has projects under way in 115 communities in Fla. and Ariz. and has a rental apartment community in Irving, Texas. In December 1988 Lennar acquired assets and operations of Richmond American Homes of Fla., active in Orlando and Tampa. Lennar also builds hotels/motels and recreational buildings. It subs out all of its work and has more than 100 full-time employees. Major subsidiaries and divisions include Lennar Homes Inc., Lennar Homes of Ariz., Development Corp. of America, H. Miller & Sons, home building. Also, Lennar Financial Services, Universal American Mortgage Co., Universal Title Insurors. Also, Lennar Commercial Properties, Lennar Management Corp. and Universal American Realty Corp.
26 $396,717	11	97 1180 units	**Paragon Group Inc.** 7557 Rambler Road, #1200 Dallas, Texas 75231 W. R. Cooper	Privately held company in calendar year 1988 built and sold 29 single-family attached homes for $1,920,000. It also built 191 apartment units for investors. These had a value of $5,745,000. It also built 960 apartment units for its own investment. These had a value of $23,576,000. Non-res construction had a value of $39,170,000. Income also came from land sales, $3,843,000; rents and management fees, $260,642,000 and building an apartment sales, $61,821,000. The rental apartments had an average of 700 square feet and were rented at an average of $450 a month. Company was active in Fla. (35%); Texas (18%); Mo. (15%), and to a lesser extent in Ariz., Calif., Colo., Ga., Ind., Ill., Kan., Ky., N.C., S.C., Utah and Va. It is building shopping centers, office buildings and office/technical structures. It subs out 81 to 99% of its work and has more than 100 full-time employees.
27 $390,809	—	92 1237 units	**J.M. Peters Co.** 3501 Jamboree Rd Suite 200 Newport Beach, Calif 92658-7150 James M. Peters	Publicly held company (Amex) in fiscal year ended 2/28/89 built and sold 1053 single-family detached homes for $337,245,000 and 184 single-family attached units for $29,695,000. Income from land sales was $13,336,000. Income from miscellaneous sources was $10,533,000. Net income was 9.9% of total dollar volume. Listed last year under Southmark, the company's largest shareholder. The detached product sold for an average of $320,000 while the attached units sold for $161,000. The family market accounted for 50% of the sales. Young marrieds purchased 15%, empty nesters, 15% and retirees, 10%. Company is active solely in Calif. It is building 904 units for active older adults in Mission Viejo and is continuing its expansion into Los Angeles/Ventura counties. San Diego market remains active. Firm building 80 units in Corona and is exploring the Inland Empire. It subs out 81% to 99% of its work and has more than 100 employees. Subsidiaries include J.M. Peters, L.A./Ventura Division, J.M. Peters San Diego Division and J.M. Peters Design Center, interior furnishings.
28 $384,844	38	30 3308 units	**Hovnanian Enterprises Inc.** 10 Highway 35 Red Bank, NJ 07701 Kevork S. Hovnanian	Publicly held company (Amex) in fiscal year ended 2/28/1989 built and sold 311 single-family detached homes for $38,561,000 and 2997 single-family attached homes for $304,841,000. Income from land was sales $15,727,000; rents and management fees, $5,704,000; engineering, mortgage interest, title company and cable TV operations, $20,051,000. Total includes 50% of N.C. subsidiary accounted on the equity method (163 detached for $16,096,000 and 19 attached for $1,462,000). Net income of total dollar volume was 7.5%. Firm is active in N.J. (77%), Fla. (13%), N.Y. (8%), N.H. (2%). Its northern (N.Y., N.J., N.H.) detached homes have an average of 2000 square feet of space and sell in the $215,000 range. Its Fla. homes have 1400 square feet of space and sell for $112,000. Its northern attached homes have 1400 square feet of space and sell for $140,000, while the Fla. product has 1200 feet and sells for $80,000. Its northern condo apartment product has 1100 feet of space and sells for $100,000 while the Fla. condos also have 1100 feet of space and sell for $68,000.
29 $371,500	29	29 3569 units	**A.G. Spanos Construction Inc.** 1341 West Robinhood Dr. Stockton, Calif 95207 Alex G. Spanos	Privately held company. In calendar year 1988 it built 3,065 apartment units for investors. These had a value of $171,500,000. It also built 504 units for its own investment. These had a value of $24,400,000. Income from land sales totaled $42,400,000. Other income came from rents and management fees, $85,300,000, and interest and syndication fees, $47,900,000. The apartments contained an average of 877 square feet and rented for $598 a month. Firm is active in Ariz., Ga., Nev., Calif. It subs out 81 to 99% of its work and has more than 100 full-time employees.

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Bramalea's acquisition of Midland Housing boosts it to 30th from 89th

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
30 **$365,949**	89	75 1442 units	**Bramalea California Inc.** 3151 Airway Ave. Costa Mesa, Calif. 92626 Peter B. Perrin	This calendar year 1988 report is a combination of the production of Bramalea and Midland Housing Industries, privately held firms, that together built and sold 1322 single-family detached homes for $281,785,000 and 120 single-family attached units for $13,924,000. Other income included land sales, $16,420,000, rents and management fees, $4,575,000 and other, $13,819,000. Bramalea California acquired Marlborough Development Corp. in January 1989. Marlborough was a subsidiary of Midland Housing. Midland reported Marlborough's construction and sales of 589 single-family detached units for $106,917,000 and 18 single-family attached units for $1,932,000. It also sold 161 high-rise units for $35,426,000 and had $13,323,000 income from mortgage banking, interest and so forth. Bramalea reported 733 single-family detached units that sold for $174,868,000 and 102 single-family attached units for $11,992,000. Mortgage company income totaled, $496,000. Bramalea California also builds office buildings. It subs 81 to 99% of its work and has more than 100 full-time employees.
31 **$358,169**	50	3 14640 units	**Skyline Corp.** P.O. Box 743 Elkhart, Ind. 46515 Arthur J. Decio	Publicly held corporation in calendar year 1988 manufactured 14,640 mobile homes. They represented a volume of $240,627,304. Firm also manufactured recreational vehicles. These produced a volume of $117,542,577.
32 **$332,413**	138	108 1123 units	**Coscan Development Corp.** P.O. Box 428 Toronto, Canada, M5X 1H9 I. Ross Cullingworth	This publicly held corporation (Toronto Stock Exchange) built 1813 housing units in the United States and Canada in calendar year 1988. Ranking is based on U.S. revenues and units only. Company built 1123 single-family attached and detached units in the United States. They were sold for $210,000,000 (Canadian dollars have been converted to U.S. dollars). Firm also built 190 high-rise units. They had a market value of $26,741,400. Income from land sales was $78,148,560. Rents brought in another $4,289,880. Interest income and management fees totaled $13,233,360. Overall total does not include 880 closings in Canada and $208 million in revenues does not include commercial properties. Net income was 4.08% of total dollar volume. Firm is active in Fla. (45%), Washington, D.C. (34%) and Ariz. (21%).
33 **$330,976**	40	49 2122 units	**[illegible] Universal Development L.P.** 4820 S. Mill Ave. Tempe, Ariz. 85282 Mr. Gary A. Rosenberg	Publicly held corporation (NYSE). During calendar year 1988 the firm built and sold 1536 single-family detached homes for $231,224,809 and 586 single-family attached units for $85,087,311. Rents and management fees brought in another $1,490,000. Income from development contracting, advisory fees, interest and other sources totaled $13,174,814. Net income was 12.3% of dollar volume. Product was sold for an average price of $150,000 per unit. Families (43%) and retirees (37%) were the main purchasers. Firm builds in Calif. (34%), Ariz. (44%) as well as in Fla., N.C., S.C., and Ga. UDC realized record results in Ariz., Calif. and the Southeast. Strongest market was Calif., in terms of growth. Firm subs out all of its work and has more than 100 employees.
34 **$329,781**	30	150 791 units	**Fairfield Communities Inc.** 2800 Cantrell Road Little Rock, Ark. 72203 C. Randolph Warner Jr.	This publicly held company (NYSE) in calendar year 1988 built and sold 791 single-family detached homes for $98,555,000. Non-res construction had a market value of $10,658,000. Other income included land sales, $24,321,000 and timesharing, resort earnings, interest and other sources, $196,247,000. Net income was 914% of its dollar volume. Firm has projects in Ark. (2%), Ariz. (45%), Fla. (33%), Tenn. (7%), N.C. (7%), and others (6%). They provide resort and recreational facilities, retirement living and primary home residences. Firm also sells lots, houses, condominiums and vacation ownership (timeshare) interests in fully furnished vacation homes designed for this purpose. Firm subs out all of its work and has more than 100 full-time employees.
35 **$320,279**	47	161 732 units	**Arvida/JMB Partners L.P.** P.O. Box 100, 7900 Glades Road Boca Raton, Fla. 33429 Roger E. Hall	This publicly held builder in 1988 built 373 houses for $55,482,080 and 359 for-sale attached units for $44,978,210. It also built and sold four high-rise units for $1,208,000. Land sales totaled $144,952,604, resort income was $21,815,695 and brokerage and other income was $52,442,589. In addition, other firms built 1281 units in Arvida communities in 1988. Builder is active solely in Fla. Houses average 2000 square feet and sell for $148,745; attached units average 1500 square feet and sell for $123,616. Firm has more than 100 employees.
36 **$297,434**	35	167 706 units	**Goldrich & Kest Industries** 5150 Overland Ave. P.O. Box 3623 Culver City, Calif. 90231 Jona Goldrich	This privately held company in calendar year 1988 built and sold 23 single-family detached homes for $3,508,900 and 91 single-family attached units for $25,193,916. It also built 592 apartment units for its own investment. These had a market value of $73,200,000. Firm built 39 high-rise units. They had a market value of $9,684,500. Non-res construction brought in $22,000,000 while rents and management fees totaled $163,846,900. Firm builds solely in Calif., has a hotel project in San Pedro and is doing a single-family home project in Los Angeles. Firm has more than 100 full-time employees.
37 **$294,880**	43	32 3184 units	**J.L. Mason Group Inc.** 5020 Tamiami Trail N. Suite 110 Naples, Fla. 33940 Joseph L. Mason	This privately held company built and sold 2059 single-family detached homes for $190,800,000 and 534 single-family attached units for $32,300,000. It also built 591 apartment units for its own investment. These had a market value of $25,905,000. Income from land sales was $37,200,000. Rents and management fees totaled $550,000. Interest, commissions and other income totaled $8,125,000. Company's fiscal year ends 7/31. However, information provided here is for the 12 months ended 1/31/89. Company is active in Mo. (55%) and Fla. (45%). Its detached product has an average of 1500 square feet of living space and sells for $92,700. The attached product averages 930 square feet and sells for $60,500. The rentals average 750 square feet in size and rent for $575 a month. Families (47%) account for most of the firm's business. Firm moved corporate headquarters from St. Louis, Mo., to Naples, Fla. Firm subs out 81 to 99% of its work and has more than 100 full-time employees.
38 **$294,600**	41	86 1277 units	**Shea Homes** 655 Brea Canyon Road Walnut, Calif. 91789 Roy Humphreys	Privately held company in calendar year 1988 built and sold 665 single-family detached homes for $157,100,000 and 258 single-family attached units for $32,500,000. The firm built 354 apartment units for its own investment. These had a value of $28,300,000. The company also had income from land sales, $38,200,000 and rents and management fees, $38,500,000. Builder moved into Phoenix market by acquiring certain assets of Knoell Homes, a 1988 Giant. The detached product averaged 2200 square feet in size and sold for $236,000. The attached units averaged 1200 square feet and sold for $126,000. The rental units contained 850 square feet of space and rented for $900 a month. Most of the company's sales were to families (75%). Company is active in Calif. (70%) and Ariz. (30%). It subs out all of its work and has more than 100 full-time employees.

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Champion Home starts up new plants, acquires Moduline International in 1988

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
39 $282,943	15	81 1346 units	**Forest City Development** 11601 Wilshire Blvd. Ste 1900 Los Angeles, Calif. 90025 Albert B. Ratner	This subsidiary of Forest City Enterprises in fiscal year ended 1/31/89 built 1346 apartment units for its own investment. These had a market value of $206,348,265. It also built 1300 high-rise residential units. These had a market value of $76,594,735. The apartment units contained an average of 800 square feet of living space and brought rents of $1000 a month. Company is active in Calif. (60%), N.J. (20%) and Md. (20%). Low-rise project was built in San Bernardino, Calif. Mid-rise projects were built in Los Angeles and San Francisco. High-rise projects were built in Chevy Chase, Md., Teaneck, N.J., Southfield, Mich., Philadelphia and Los Angeles. Firm has more than 100 full-time employees. Subsidiary operations include Forest City Residential Development, Cleveland, Ohio; Forest City Properties, Los Angeles, and Forest City Rental Properties, Cleveland.
40 $268,014	39	2 16038 units	**Redman Homes** 2550 Walnut Hill Lane Dallas, Texas 75229 Michael Brignole	This subsidiary of Wingate Partners of Dallas, manufactured 16,038 mobile homes in calendar year 1988. This represented a dollar volume of $268,014,000. Redman Homes was purchased in December 1988, by Wingate Partners, a conglomerate headed by three partners.
41 $263,761	34	4 13953 units	**Champion Home Builders Co.** 5573 E. North St. Dryden, Mich. 48428 Joseph J. Morris	This subsidiary of Champion Enterprises Inc., a publicly held corporation (Amex), manufactured 13,519 mobile homes in the United States in calendar year 1988. These had a market value of $253,191,000. It also built and sold 434 mobile homes in Canada during the same period. These had a value of $10,570,000. Other subsidiary operations of Champion Enterprises include Champion Home Communities of Dryden, Mich., a developer and manager of manufactured housing communities. Champion Enterprises opened Sun Belt Energy Housing, a housing manufacturer with two plants in Ala., including Gateway Homes, begun in March 1988. Moduline International, a housing manufacturer, was acquired in February, 1988. Lamplighter Homes, a manufactured home retailer, also was acquired in February 1988.
42 $263,294	33	36 2904 units	**General Homes Corp.** P.O. Box 37148 Houston, Texas 77036 Jeffrey P. Payson	This publicly held corporation (NYSE) in fiscal year ended 9/30/88 built and sold 2904 single-family detached homes for $260,460,000. Income from land sales was $2,834,000. The homes averaged 1860 square feet in size and sold for $89,690. Company was active in Texas (54%), La. (4%), Fla. (22%) and Ariz. (2%). The firm subs out all of its work and has more than 100 full-time employees. The company in its annual report stated it had a net loss for the 1988 fiscal year. The loss was attributed to the fact that much of the firm's activities were in the Houston, Dallas-Ft. Worth and New Orleans markets, all of which were severely affected by the energy crunch.
43 $253,900	117	229 438 units	**McKellar Development of La Jolla** 1250 Prospect #103 La Jolla, Calif. 92037 Christopher S. McKellar	This privately held company in calendar year 1988 built and sold 87 single-family detached homes for $19,100,000 and 351 single-family attached units for $38,600,000. Its non-res activity brought in $112,000,000; land sales, $75,200,000; rents and management fees, $5,800,000 and interest and miscellaneous income, $3,200,000. The detached product had an average of 1650 square feet of living space and sold for $220,000. The attached units had 1070 feet of space and sold for $110,000. The company, which has 99% of its operations in Calif. and 1% in Utah, sold 22% of its product to singles, 21% to young couples, 12% to families, 31% to empty nesters and 14% to retirees. The firm is building in San Diego, Rancho Bernardo, Orange County and La Jolla. It also is involved in shopping centers, warehouses, industrial plants, office and medical buildings and scientific research structures. It subs out all of its work and has more than 100 full-time employees.
44 $250,000	46	34 3070 units	**Robertson Homes** 6653 Embarcadero Stockton, Calif. 95209 Barton R. Robertson	Privately held company in fiscal year ended 3/31/89 built and sold 20 single-family detached homes for $3,000,000. It also built 2500 apartment units for investors. These had a market value of $161,475,410. The company also built 550 apartment units for its own investment. These had a value of $35,524,590. Rents and management fees brought in $50,000,000. The apartments averaged 860 square feet in size and rented for $700 a month. The company is active in Nev. (5%), Calif. (90%) and Tenn. (5%). It is building in Reno, Memphis, Palm Desert, Corona and Fremont, Calif. It subs out all of its work and has more than 100 full-time employees.
45 $241,050	24	50 2064 units	**Property Company of America** 2431 E. 61st St., -800 Tulsa, Okla. 74136 Paul Hinch	This privately held company built 2064 apartments for investors. That activity produced a sales volume of $132,000,000 during calendar year 1988. Non-residential construction accounted for $19,250,000. Rental income and management fees totaled $80,000,000. Construction and development fees came to $9,800,000. The firm did 20 % of its business in Fla., 15% in Calif., 15% in Va., 10% in Ga., 10% in Conn., 10% in Mo., 10% in Mich., 5% in Ill., and 5% in Pa. Living space averaged 700 sq. ft. The average rent was $625 a month.
46 $240,000	109	39 2684 units	**Oxford Development Corp.** 7316 Wisconsin Ave. Bethesda, Md. 20814 Leo E. Zickler	This privately held company built 2684 apartments for investors for a sales volume of $240,000,000 in the fiscal year ended March 31, 1988. A subsidiary was Oxford Development Enterprises, Inc. of Bethesda, Md. Development activity was conducted on a joint venture basis taking advantage of opportunities in select markets. Property management performance was enhanced as a result of the successful service-oriented programs such as the Oxford Club and corporate leasing programs. The company also had a senior living services division. The apartments averaged 835 sq. ft. Rents averaged $600 a month.
47 $229,243	53	156 756 units	**Valencia Co.** 23823 Valencia Blvd. Valencia, Calif. 91355 Gary Cusumano	This subsidiary of Newhall Land and Farming in Valencia, Calif., sold 237 single-family detached houses for $63,778,000 and 285 single-family attached units for $33,993,000 in calendar year 1988. The company built 234 apartments valued at $21,000,000 for its own investment. Land sales accounted for $56,306,000. Rental and management fees provided another $12,954,000. Other sources of income were agriculture business and interest for $41,212,000. The company did all of its building in Calif. The highest percentage of sales were to families with children (50%).
48 $226,771	76	114 1074 units	**A-M Homes** 125 E. Victoria St. Santa Barbara, Calif. 93101 Michael Muench & James Araujo	The largest portion of the sales volume for this privately held company in calendar year 1988 came from 358 single-family detached units for $85,591,000. A total of $53,000,000 was produced from 577 apartments built for the company's own investment. Single-family attached sales at 139 units accounted for $31,048,400. Land sales produced another $48,521,000. Rental income and management fees came to $513,300. Other sources of income totaled $8,097,700 and included mortgage company fees and interest. The company did 80% of its business in Calif. and 20% in Ariz.

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Jim Walter Homes starts a remodeling operation, Schottenstein Homes expands in the Midwest

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
49 **$217,300**	57	93 1214 units	**Fieldstone Co.** 14 Corporate Plaza Newport Beach, Calif. 92660 Peter M. Ochs	Single-family detached housing (969 units for $173,800,000) accounted for the largest portion of sales volume for this privately held company in calendar year 1988. Single-family attached houses at 245 units brought in $32,000,000. Interest earnings from joint ventures produced $11,500,000. All of the firm's business was done in Calif. The average size of a single-family detached house was 1660 sq. ft. The average price was $179,400. The average size of a single-family attached unit was 1200 sq. ft. The average price was $131,000.
50 **$216,743**	92	79 1370 units	**Barratt American Inc.** 30 Fairbanks, Ste. 110 Irvine, Calif. 92718 Mark L. Frazier	This subsidiary of Barratt Developments PLC in Newcastle, England, sold 890 single-family detached houses for $144,743,000 in calendar year 1988. Single-family attached units at 480 accounted for $72,000,000. All of the building activity took place in Calif.
51 **$212,666**	58	7 9350 units	**Clayton Homes Inc.** P.O. Box 15169 Knoxville, Tenn. 37901 Jim Clayton	The bulk of the sales volume for this publicly held company came from 9350 mobile homes for a total of $137,368,000 in the fiscal year ended 6/30/88. Other sources of income accounted for $75,298,000 and included revenues from retail sales, finance and insurance. Net income was 6.6% of total dollar volume. The company had seven plants in Tenn., two in N.C., and one in Ga. These plants shipped manufactured homes into 19 states. A new division was Manufactured Housing Communities in which residents own their homes and rent the land.
52 **$212,000**	55	161 720 units	**Urban West Communities** 520 Broadway Ste. 100 Santa Monica, Calif. 90401 Stephen Gunther	Single-family detached houses at 530 units with a value of $170,500,000 accounted for the largest portion of the sales volume for this privately held company in calendar year 1988. Single-family attached units came to 190 for a sales volume of $41,500,000. All of the company's business took place in Calif. Sales were to families (80%) and young married couples with no children (20%). Single-family detached houses averaged 3000 sq. ft. and sold for an average price of $321,598. Single-family attached houses averaged 1800 sq. ft. and sold for an average of $218,421
53 **$207,830**	87	210 509 units	**Buie Corp.** 16935 W. Bernardo Drive San Diego, Calif. 92127 Robert F. Buie	In calendar year 1988 this privately held company sold 476 single-family detached houses for a sales volume of $99,140,000. The figure was $4,679,000 for 33 single-family attached houses. Non-residential construction accounted for $5,871,000. Land sales came to $98,140,000. Single-family detached houses averaged 2000 sq. ft. and sold for an average of $208,000. Single-family attached units averaged 1200 sq. ft. and sold for an average of $141,000. Families purchased 35% of the units, young married couples with no children 20%, empty nesters 20%, retirees 20% and singles 5%.
54 **$205,000**	51	17 5691 units	**Jim Walter Homes Inc.** 1500 N. Dale Mabry Hwy. Tampa, Fla. 33607 Robert W. Michael	All of the company's sales volume in the fiscal year ended 5/31/88 came from 5691 single-family detached units for $205,000,000. The houses averaged 1141 sq. ft. and sold for an average of $36,192. The company had 103 offices throughout the Southeastern United States. This privately held company was a subsidiary of Walter Ind. and had its own subsidiary, Walter Home Improvement, a remodeling business which was started during the year
55 **$203,454**	45	153 757 units	**Grupe Co.** P.O. Box 7576 Stockton, Calif. 95207 Greenlaw Grupe Jr.	In calendar year 1988 this privately held company sold 250 single-family detached houses for $44,906,349 and 68 single-family attached units for $4,674,973. The firm also built 439 apartments valued at $24,762,137 for investors. Non-residential construction accounted for $12,065,992. Land sales came to $30,884,283. Rental income and management fees totaled $72,825,155. Commissions, fees, interest and other operations produced $13,335,768. The firm did 85.4% of its business in Calif., 8.4% in Tenn., 4.6% in Colo. and 1.4% in Ariz.
56 **$203,200** **est.**	49	121 1024 units est.	**Warmington Homes** 3090 Pullman Street Costa Mesa, Calif. 92626 James P. Warmington	In 1988, *Professional Builder* estimates this privately held builder built and sold 1024 for-sale housing units for the estimated revenues shown. About 75% of the units were single-family detached houses.
57 **$200,252**	81	57 1773 units	**M/I Schottenstein Homes Inc.** 1855 E. Dublin-Granville Columbus, Ohio 43229 Irving E. Schottenstein	This publicly held corporation sold 1773 single-family detached houses for $188,691,000 in calendar year 1988. Land sales accounted for $10,542,000. Origination fees and application fees came to $1,019,000. Net income was 2.46% of total dollar volume. The firm did business in N.C., Tenn., Ohio and Fla. The single-family detached houses averaged 1850 sq. ft. and sold for an average of $106,400. New areas included Indianapolis and Cincinnati. The Nashville, Tenn., market, which was entered in 1987, generated its first sales in 1988.
58 **$200,167**	91	149 778 units	**Toll Brothers Inc.** 3103 Philmont Ave. Huntingdon Valley, Pa. 19006 Robert I. Toll	*Professional Builder* named Robert Toll and Bruce Toll the 1988 Builder Of The Year. Sales of 616 single-family detached houses accounted for $171,315,000, the bulk of the sales volume for this publicly held corporation in the fiscal year ended 10/31/88. The firm also sold 162 single-family attached units for $25,712,000. Income from joint venture and interest came to $3,140,000. Net income was 12% of total dollar volume after taxes. The company did 48% of its business in Pa., 33% in N. J., 11% in Del., 4% in Md. and 4% in Mass.
59 **$196,263**	60	120 1029 units	**Arthur Rutenberg Corp.** 15351 Roosevelt Blvd. Clearwater, Fla. 34620 Arthur Rutenberg	This privately held company sold 915 single-family detached houses for a volume of $177,740,709 in calendar year 1988. Also built and sold were 114 single-family attached units for a volume of $15,383,781. Land sales accounted for $3,139,082. The company does 91% of its business in Fla., 7 % in N.C. and 2% in Ga. Single-family detached houses averaged 2800 sq. ft. and sold for an average of $200,000. Single-family attached units averaged 1650 sq. ft. and sold for an average of $135,000. The company had 27 subsidiaries.
60 **$194,586**	114	234 417 units	**McMillin Cos.** 2727 Hoover Ave. National City, Calif. 92050 Macey L. McMillin Jr.	The bulk of the volume for this privately held company in calendar year 1988 came from 417 single-family detached houses at a sales volume of $101,122,656. General contracting for non-residential construction generated $67,450,065. Rental income and management fees came to $12,739,383. Real estate resales, mortgage brokerage and escrow were other sources of income that came to $13,274,397. The company did all of its business in Calif. The firm acquired the assets of the Sandling Co., which was located in Irvine, Calif.

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
61 **$192,000**	80	73 1444 units	**Griffin Homes** 24005 Ventura Blvd. Calabasas, Calif. 91302 Paul E. Griffin Jr.	In the fiscal year ended 10/31/88 this privately held company sold 698 single-family detached houses for $98,000,000. It also sold 746 single-family attached units for $64,000,000. Land sales provided another $30,000,000. Rental income and management fees came to $450,000. The firm does all of its business in Calif. Single-family detached houses averaged 1400 sq. ft. and sold for an average of $140,000. Single-family attached houses averaged 1000 sq. ft. and sold for an average of $86,000.
62 **$190,000 est.**	74	129 984 units est.	**Homestead Group Assoc.** 11854 LaGrange Ave. Los Angeles, Calif. 90025 Haskel Iny	*Professional Builder* estimates that this privately held firm in 1988 built 984 apartment units for its own portfolio for the total revenues shown.
63 **$179,300**	56	83 1300 units est.	**Cenvill Development Corp.** 1926 10th Avenue N. Lake Worth, Fla. 33417 Richard Siemens	Revenues for this publicly held builder (listed on American Exchange) are from firm's annual report. *Professional Builder* estimates builder sold 260 houses and 1040 attached homes in fiscal year ended 10/31/88. Cenvill is subsidiary of First American Bank and Trust. Active in Fla. and Ill. Started major empty-nester community called Carillon in Chicago suburbs.
64 **$171,600**	—	62 1681 units	**Newport Pacific Development** 177 Riverside Newport Beach, Calif. 92663 Magny Hanna	This privately held company in calendar 1988 built and sold 52 single-family attached houses for $5,800,000 and 191 apartments for $15,200,000. The company also built and held for its own investment 1438 apartments valued at $148,500,000. Land sales generated $2,100,000 of the total sales volume. Subsidiaries include Newport Pacific Development, Newport Pacific Architecture and Newport Pacific Construction, all active in multifamily housing and located in Newport Beach, Calif. Condos average 1100 sq. ft. in size and sell for an average price of $135,000. Apartments average 825 sq. ft. in size and rent for an average of $750 a month. Buyers are 65% young married without children, 30% families and 5% singles. Active exclusively in Calif.
65 **$170,125**	70	166 687 units	**Baldwin Co.** 16811 Hale Ave. Irvine, Calif. 92714 Alfred E. Baldwin	More than half of the sales volume in calendar year 1988 for this privately held company came from 370 single-family detached houses for $106,000,000. Single-family attached houses accounted for $51,000,000 in sales for 317 units. Non-residential construction totaled $13,125,000. The company did all of its business in Calif. Single-family detached houses averaged 2600 sq. ft. and sold for an average price of $286,500. Single-family attached houses averaged 1400 sq. ft. and sold for an average of $160,800.
66 **$169,300**	72	116 1050 units	**Calton Inc.** 500 Craig Road Freehold, N.J. 07728 Anthony J. Caldarone	Almost all of the revenue of this publicly held corporation in the fiscal year ended 11/30/88 came from the sale of 1050 single-family detached houses for $164,100,000. The other income was $5,200,000 from land sales. Net income was 1.3% of total dollar volume. These figures did not show equity in earnings of limited partnerships, joint ventures and unconsolidated subsidiaries of $5,293,000. Company did 41% of its business in Fla., 39% in N.J. and 20% in Pa.
67 **$168,000**	52	96 1180 units	**Kaplan Organization** 3100 Woodbridge Ave. Edison, N.J. 08818-2910 Michael Kaplan	This privately held firm in 1988 sold 686 single-family detached, 255 for-sale, multifamily units and built 239 apartment units for its own portfolio for a total volume of $162,000,000. Of the company's for-sale housing, 565 units are modular houses built in Kaplan's own plant. Mortgage company and upgrades division contributed $6,000,000 in revenue for the total shown. Active in N.J., Atlanta, Md. and New York. Getting heavily into retirement market. Opened a 2400-unit retirement center in south central N.J. and a 239-unit lifecare project in Md. Firm has more than 100 employees.
68 **$166,000**	190	94 1200 units	**George Wimpey Inc.** 3565 Seventh Ave. San Diego, Calif. 92103 P. D. Whitehouse	This U.S. operation of London-based George Wimpey PLC built and sold 1200 units for approximately $166,000,000 in 1988. U.S. subsidiaries are Morrison Homes of Calif. and Monarch Homes of Texas. Bernard Fink, president of the southern division of Morrison Homes reported building 121 houses for $18,293,000 and 2 attached units for $545,000. Land sales were $16,946,000. Wimpey closed its land operation in Texas and is closing several Monarch Homes offices. But builder says it will maintain a presence in Texas. Completing its first retirement community in San Diego. Plans further development in northern and Southern California.
69 **$164,807**	108	276 307 units	**Holiday Organization Inc.** 400 Post Ave. Westbury, N.Y. 11590 Gerald Monter	This privately held company in calendar 1988 built and sold 128 single-family detached houses for $57,300,000 and 179 single-family attached houses for $54,737,000. The construction of 54 high-rise residential units added $14,606,000. Other income came from land sales of $17,200,000 and rental income and management fees of $20,964,000. Detached houses average 4000 sq. ft. and sell for $447,000. Attached houses average 2700 sq. ft. and sell for $422,553. Condos average 1050 sq. ft. and sell for $135,000. Active 90% in N.Y. and 10% Fla.
70 **$164,749**	65	207 522 units	**Ahmanson Developments Inc.** 1123 S. Parkview Dr. Covina, Calif. 91724 Jeffrey A. Slavin	This building subsidiary of Home Savings of America in calendar year 1988 built and sold 522 single-family detached homes for $78,120,000. Income from land sales was $86,629,000. Net income was 5.8% of total dollar volume. Revenue and unit rank is based solely on firm's own activity. In addition, builder was involved in joint ventures with other builders that accounted for an additional 817 houses and $193 million in revenues. Joint ventures in 139 townhouse units totaled $19,451,000. Firm active in Calif. (73%), Ill. (26%) and Fla. (1%). It subs out all of its work and has more than 100 employees. Half of its production is for the family market. The detached product runs 2150 sq. ft. and sells for $196,597 while the attached units contain 1500 sq. ft. of space and sell for $170,000. Numbers are averages.
71 **$163,700**	71	68 1579 units	**Holtzman & Silverman Const. Co** 30833 Northwestern Farmington Hills, Mich. 48018 B. Silverman & J. Holtzman	Apartments built for its own investment (1472 units for $77,500,000) provided the biggest share of sales volume for this privately held company in calendar year 1988. Rental income and management fees from Village Green Management Co. were second with $68,000,000. The company, which did all of its business in Mich., also built 44 single-family detached houses for $5,000,000 and 63 single-family attached units for $9,000,000. Land sales accounted for $3,000,000. Other income was $1,000,000 from Holtzman & Silverman Communications Co. and $200,000 from Holtzman & Silverman Securities Co.

Investor group buys Lexington Development, largest builder in Illinois

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
72 $162,925	82	133 928 units	**Lycon Group** 15303 Ventura Suite 1000 Sherman Oaks, Calif. 91403 Robert J. & Dale Francescon William S. Lyons Jr.	This privately held company built 918 apartments for its own investment valued at $138,475,000 in calendar year 1988. The firm also sold 10 single-family detached houses for $7,850,000. Rental income and management fees came to $14,400,000. Other income for the firm, which did all of its business in Calif., was $2,200,000. Rental apartments averaged 900 sq. ft. and rented for an average of $1100 a month. The single-family detached houses averaged 5100 sq. ft. and were priced at an average of $785,000.
73 $162,200	79	190 572 units	**Corcoran Jennison Cos.** One Heritage Dr. Quincy, Mass. 02171 Joseph E. Corcoran	In the fiscal year ended 12/31/88 this privately held company built 396 apartments valued at $37,900,000 for its own investment. The firm also sold 176 single-family attached houses for $25,300,000. Also sold were 883 high-rise residential units (5 stories or more) for $64,000,000. Rental income and management fees totaled $35,000,000. The company did 80% of its business in Mass., 10% in N.Y. and 10% in Va. Subsidiaries were Corcoran Jennison Construction Co. and Corcoran Jennison Management Co.
74 $161,825	140	63 1664 units	**Homestead Land Development** 1777 Murchison Drive Burlingame, Calif. 94010 Jerry A. Finch	Apartments built for its own investment (1232 units valued at $80,080,000) accounted for almost half of the sales volume in calendar year 1988 for this subsidiary of Homestead Savings and Loan in Burlingame, Calif. The company also sold 432 single-family detached houses for $54,000,000. Land sales produced $13,340,000. Rental income and management fees came to $14,405,000. All business was conducted in Calif. Apartments averaged 850 sq. ft. Rents averaged $553 a month. Single-family detached houses averaged 1575 sq. ft. and sold for an average of $125,000.
75 $161,100	96	126 1000 units	**Foreston Development** 5 Dakota Dr. Lake Success, N.Y. 11042 Jack C. Heller	Single-family attached housing sales (280 for $62,000,000) was the largest category in calendar year 1988 for this subsidiary of the Foreston Group in Lake Success, N.Y. Single-family detached housing sales at 140 accounted for $44,100,000. The company built 580 apartments for its own investment at a value of $30,000,000. A total of 35 remodeling and rehabilitation jobs produced $25,000,000. The company did 57% of its business in Va., 35% in N.Y. and 8% in N.J. The company had seven subsidiaries.
76 $160,700	67	125 1011 units	**Harkins Group** 12301 Old Columbia Pike Silver Spring, Md. 20904 Thomas P. Harkins	Sales of 708 high-rise residential units (5 stories or more) accounted for $80,900,000 for this privately held company in calendar year 1988. Also built were 810 apartments sold for $30,000,000. Single-family attached housing sales accounted for $13,000,000 from 201 units. Remodeling and rehabilitation jobs produced $16,500,000 from 4 jobs. Non-residential construction came to $12,800,000. Rental income and management fees contributed $1,000,000. Carpentry subcontracting provided $6,500,000. The company did 55% of its business in Md., 30% in Va., 7% in Washington, 5% in W.Va., and 3% in Pa.
77 $159,000	85	76 1440 units	**Edward Rose Building** P.O. Box 937 Southfield, Mich. 48037 Sheldon Rose	Rental income and management fees provided the bulk of income for this privately held company in calendar year 1988: $120,000,000 from approximately 29,000 apartments. The company also built 1400 apartments for its own investment for a value of $35,000,000. Single-family detached housing sales accounted for $4,000,000 from 40 units. The company did 49% of its business in Mich., 20% in Ind., 10% in Ohio, 10% in Mo., 5% in Ill., 2% in Wis. and 1% each in N.C., S.C., Va. and Tenn. Apartments averaged 820 sq. ft. and rented for an average of $420 a month.
78 $157,017	42	13 6277 units	**Palm Harbor Group** 17070 Dallas Pkwy. Dallas, Texas 75248 Lee Posey	Privately held company in calendar year 1988 manufactured 6277 mobile homes with a market value of $157,017,515. Company builds in seven states, including Fla. (28%), N.C. (21%), Texas (14%), Ala. (13%), Ohio (12%), Ariz. (10%) and Ga. (2%). Firm employs more than 100 full-time employees.
79 $156,500	54	99 1164 units	**Pacific Scene Inc.** 3900 Harney St. San Diego, Calif. 92110 Tawfig N. Khoury	Privately held company in calendar year 1988 built and sold 692 single-family detached units for $87,640,000. Firm also built 472 apartment units for its own investment with a market value of $42,255,000. Rental income and management fees generated $26,605,000. Firm is active in Calif. (89%) and Ariz. (11%). It subbed out 81 to 99% of its work. Company has more than 100 full-time employees.
80 $156,000	120	141 835 units	**Woodcrest Development** 17911 Mitchell Ave. Irvine, Calif. 92714 Ronald J. Gilles	Privately held company in fiscal year ended 9/30/88 built and sold 759 single-family detached units for $144,000,000. Firm also built and sold 76 single-family attached units for $12,000,000. Operations were 100% in Calif. Detached product averages 200 sq. ft. of space and sells for $190,000. Attached product averages 1350 sq. ft. of space and sells for $160,000. Sales were to families (70%), singles (10%), empty nesters (10%) and childless couples (10%). Firm subbed out all of its work. It has more than 100 full-time employees.
81 $154,775	94	102 1148 units	**Lexington Development** 1156 W. Shure Dr. Arlington Heights, Ill. 60004 Ronald J. Benach	Privately held company in calendar year 1988 built and sold 476 single-family detached units for $76,395,106 and 672 single-family attached units for $76,667,912. Miscellaneous income totaled $1,712,448. In May 1989, two Chicago developers, Edward Ross and Jerold Wexler of Focus Financial Corp., bought Lexington, the largest home builder in Illinois. Firm is active in Ill. (75%) and Fla. (25%). Detached product has an average of 2200 sq. ft. of space and a sales price of $170,000. Attached product has an average of 1550 sq. ft. of space and a sales price of $143,000. Sales were to singles (33%), families (29%), childless couples (25%), empty nesters (10%) and retirees (3%). Firm subbed out all of its work. It employs more than 100 people full time.
82 $153,927	164	339 200 units	**Avatar Holdings Inc.** 201 Alhambra Cir. Coral Gables, Fla. 33134 Lawrence Wilkov	This public builder (NASDAQ) in 1988 built and sold 200 housing units for $13,193,000. Interest income, utility revenues and resort revenues added $71,850,000. Rental income, cable TV and other real estate activities amounted to $2,510,000. Land sales were $66,374,000. Net income was 7.7% of revenues. Home prices range from mid-$40,000s to low $90,000s. Communities include Poinciana New Township, Cape Coral, Golden Gate, Barefoot Bay, Leisure Lakes and Rio Rico.

Oceanic Properties of Hawaii also builds in California and Arizona

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
83 $151,339	84	135 887 units	**Leisure Technology Inc.** 12233 W. Olympic Blvd. Los Angeles, Calif. 90064 Michael L. Tenzer	Publicly held corporation in fiscal year ended 3/31/88 built and sold 313 single-family detached units for $41,650,000 and 574 single-family attached units for $101,650,000. Income from land sales totaled $5,000,000; utilities and cable TV brought $3,039,000. Firm's net income from the total dollar volume was 5%. Detached units average 1500 sq. ft. of space for $133,000. Attached product averages 1640 sq. ft. of space for $177,000. Firm is active in Calif. (52%), N.J. (32%), Fla. (13%) and N.Y. (3%). All of its worked was subbed out. Corporation has more than 100 full-time employees. Subsidiary operations include New Jersey Division, New York Division, Midwestern Division, Florida Gulf Division, Florida Atlantic Division, Southern California Division, Arizona Division and LeisureCare Division.
84 $151,278	78	189 574 units	**Dividend Development Corp.** 3600 Pruneridge Ave. Ste. 340 Santa Clara, Calif. 95051 Douglas Watson	Privately held company in calendar year 1988 built and sold 517 single-family detached units and 57 single-family attached units for a total of $122,535,180. Land sales income totaled $24,204,480. Rental income and management fees totaled $1,512,780. Miscellaneous income totaled $151,278,000. Detached product averages 2200 sq. ft. of space for $3,025,560. Attached product averages 1750 sq. ft. of space for $250,000. Sales were to families (65%), retirees (10%), childless couples (10%), empty nesters (7.5%) and singles (7.5%). Firm is active in Calif. (93%) and Ariz. (7%). It subbed out 81 to 99% of its work. Company employs between 51 and 100 people full time.
85 $150,508	101	192 571 units	**FPA Corp.** 2507 Philmont Ave. Huntingdon Valley, Pa. 19006 Jeffrey P. Orleans	Publicly held corporation in fiscal year ended 6/30/88 built and sold 115 single-family detached units for $22,836,000 and 456 single-family attached units for $48,682,000. High-rise residential units totaled 71 units. These had a development volume of $13,247,000. Income from land sales totaled $11,276,000. Revenues from discontinued Leisure Services totaled $49,941,000. Miscellaneous income was $4,526,000. Firm's net income from total dollar volume was 4%. Single-family detached units average 2300 sq. ft. of space for $198,600. Single-family attached units average 1800 sq. ft. of space for $153,300. Condominium apartments average 1200 square feet of space for $108,500. Sales were to singles (31%), families (27%), empty nesters (15%), childless couples (14%) and retirees (13%). Firm is active in Pa. (44%), Fla. (32%) and N.J. (24%). Corporation subbed out 81 to 99% of its work. It has more than 100 full-time employees. Orleans Corp. of Pa. and Orleans Florida Inc. are subsidiary operations.
86 $146,766	83	125 1003 units	**International American Homes** 100 Walnut Ave. Clark, N.J. 07066 Robert H. Winnerman	Publicly held corporation in calendar year 1988 built and sold 475 single-family detached units for $75,350,000 and 528 single-family attached units for $65,585,000. Income from land sales totaled $4,461,000; miscellaneous income was $1,370,000. Firm's net income was 2.7% of total dollar volume. Subsidiary operations include Porten Sullivan, Md., Porten Sullivan, Fla., Suarez Housing Corp., Greater Tampa, Fla. and Inland Pacific Communities, Southern Calif. Sales were to families (33%), childless couples (31%), singles (22%), empty nesters (10%) and retirees (4%). Firm subbed out all of its work. It has more than 100 full-time employees.
87 $146,183	243	66 1607 units	**Colson & Colson Constr. Co.** 2741 12th St. SE Salem, Ore. 97302 William E. Colson	This privately held company in calendar 1988 built 1607 apartments with a market value of $97,839,500 for its own investment. Remodeling and renovation jobs accounted for $497,000. Firm's non-res construction had a value of $790,000. Rental income and management fees totaled $47,057,322. Rental apartments average 810 sq. ft. of space for $975 a month. Sales were entirely to retirees. Firm is active in Calif. (25%), Ore. (15%), Wash. (10%), Ill. (10%), Ky. (10%), S.C. (10%), Tenn. (10%), R.I. (5%) and La. (5%). It subbed out 81 to 99% of its work. Firm has more than 100 full-time employees.
88 $144,794	240	123 1013 units	**Oceanic Properties Inc.** P.O. Box 2780 Honolulu, Hawaii 96803 Thomas C. Leppert	In 1988, this subsidiary of publicly held Castle & Cooke Inc. sold 844 houses for $81,639,000 and 169 attached homes for $20,871,000. Market value of non-res construction was $9,248,000. Land sales totaled $10,611,000 and net rental income and management fees were $15,369,000. Interest, partnership income and miscellaneous income was $7,056,000. Residential development subsidiary operations include Mililani Town, Honolulu, Oceanic Communities of Calif. and Ariz., Oceanic Calif. Inc. and Barclay Hollander Corp. Houses average 1500 sq. ft. and sold for $230,000; attached homes average 1000 sq. ft. and sold for $137,000. Active in Hawaii (60%), Calif. (33%), and Ariz. (7%). Subbed out 81-99% of construction work. Firm has more than 100 employees.
89 $143,750	230	140 842 units	**Condiotti Enterprises Inc.** P.O. Box 6855 Santa Rosa, Calif. 95406 A. Condiotti	Privately held company in calendar year 1988 built and sold 745 single-family detached units for $100,600,000 and 97 single-family attached units for $16,000,000. Its non-res construction of warehouses and office buildings had a market value of $6,000,000. Income from land sales totaled $12,000,000. Rental income and management fees totaled $11,150,000. Subsidiary operations include Oceanis, Santa Rosa, Calif. Company is active only in Calif. Detached product averages 1600 sq. ft. of space for $135,000. Attached product averages 1400 sq. ft. of space for $145,000. Firm subbed out 81 to 99% of its work. It has between 21 and 50 full-time employees.
90 $143,642	106	172 648 units	**Milton Co.** 1430 Springhill Rd. McLean, Va. 22102 Milton Schneiderman	Privately held company in fiscal year ended 1/31/89 built and sold 108 single-family detached units for $22,708,000. It also built and sold 540 single-family attached units for $77,494,000. Subsidiary operations include Milton Development Co., Dallas. Income from land sales totaled $42,375,000. Interest income totaled $1,065,000. Detached product averages 2700 sq. ft. of space for $260,000. Attached product averages 1800 sq. ft. of space for $210,000. Apartment condominiums average 950 sq. ft. of space for $95,000. Sales were to singles (40%), childless couples (25%), families (20%) and empty nesters (15%). Firm is active in Md. (63%) and Va. (37%). It subbed out all of its work. Company has more than 100 full-time employees.
91 $143,570	142	247 394 units	**Stanley Martin Cos., Inc.** 8000 Towers Crescent Dr. Vienna, Va. 22182 Martin K. Alloy	Privately held company in fiscal year ended 3/31/89 built and sold 213 single-family detached units for $82,774,677 and 181 single-family attached units for $29,048,205. Non-res construction of office buildings, warehouses and medical buildings had a market value of $4,900,000. Income from land sales totaled $19,798,089. Rental income and management fees totaled $850,000. Interest, equipment rental and mortgage fees totaled $6,200,000. Detached product averages 3200 sq. ft. of space for $389,000. Attached product averages 1726 sq. ft. of space for $160,500. Sales were to families (45%), childless couples (30%), empty nesters (15%), retirees (5%) and singles (5%). Firm is active in Va. (88%) and Md. (12%). Subsidiary operations include Stanley Martin Commercial, Bethesda, Md., Heritage Mortgage, Reston, Va. and Stanley Martin Title, Fairfax, Va. Firm subbed out 81 to 99% of its work. It has more than 100 full-time employees.

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Diversified Fralin and Waldron reports revenues from housing, remodeling, non-res

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
92 **$143,400**	160	193 565 units	**James Lewis Corp.** 1301 Lancaster Ave. Berywn, Pa. 19312 Lewis J. Brandolini III	In calendar year 1988 this privately held company built and sold 220 single-family detached units for $50,000,000. It also built and sold 235 single-family attached units for $33,000,000. Firm built 100 apartments with a market value of $6,000,000 for its own inveslment and 10 apartments with a market value of $600,000 for investors. Non-res construction of shopping centers, warehouses, hotels, motels and retail stores had a market value of $27,500,000. Land sales income totaled $20,000,000. Rental income and management fees totaled $6,300,000. Subsidiary operations include First Strafford Corp., Berwyn, Pa., Daylesford Associates Inc., Paoli, Pa., Baldwin Development Co. Inc., Exton, Pa. and Gwynleigh Inc., Lansdale, Pa. Firm subbed out 81 to 99% of its work. It has between 21 and 50 full-time employees.
93 **$142,101**	—	223 459 units	**Gregory Group** 220 Twin Dolphin Drive, C Redwood City, Calif. 94065 Gregory J. Erickson	Privately held company in calendar year 1988 built and sold 459 single-family detached units for $136,775,374. Land sales income totaled $5,326,000. Detached product averages 2000 sq. ft. of space for $298,000. Sales were to families (68%), childless couples (21%), empty nesters (7%), singles (3%) and retirees (1%). Firm builds only in Calif. It subbed out 81 to 99% of its work. Company has between 51 and 100 full-time employees.
94 **$138,014**	63	146 793 units	**Weingarten Siegel Group** 198 Route 9 Manalaplan, N.J. 07726 Ned L. Siegel	In calendar year 1988 this privately held company built and sold 187 single-family detached units for $49,877,638 and 606 single-family attached units for $85,091,128. Rental income and management fees totaled $3,045,938. Detached product averages 2500 sq. ft. of space for $250,000. Attached product averages 1300 sq. ft. of space for $150,000. Sales were to families (38%), childless couples (35%), empty nesters (15%), singles (10%) and retirees (2%). Firm is active in N.J. (80%), Fla. (15%) and Calif. (5%). Firm subbed out all of its work. It has more than 100 full-time employees.
95 **$136,306**	116	267 321 units	**Fralin and Waldron Inc.** P.O. Box 20069 Roanoke, Va. 20069 Elbert Waldron, Horace Fralin	In calendar year 1988 this privately held company built and sold 54 single-family detached units for $6,270,700. It also built 267 apartments with a market value of $16,528,000 for its own investment. Income from remodeling and renovation jobs totaled $347,200. Non-res construction of office and medical buildings had a market value of $17,336,700. Income from land sales was $470,300; rental income and management fees were $37,000,000. Income from nursing homes and retirement centers totaled $57,854,000. Detached product averages 1850 square feet of space for $116,125. Sales were to families (50%), childless couples (35%), singles (10%) and empty nesters (5%). Firm is active only in Va. It subbed out 81 to 99% of its work. Company has more than 100 full-time employees.
96 **$135,000**	112	178 625 units	**Sunrise Co.** 75-005 Country Club Drive Palm Desert, Calif. 92260 William Bone	This privately held company in fiscal year ended 3/31/89 built and sold 35 single-family detached units for $17,000,000 and 590 attached units for $108,000,000. Miscellaneous income accounted for $10,000,000. Detached product averages 3200 sq. ft. of space for $300,000. Attached product averages 2000 sq. ft. of space for $200,000. Sales were to empty nesters (60%), families (30%) and retirees (10%). Firm is active only in Calif. It subbed out all of its work. Company has more than 100 full-time employees.
97 **$133,231**	148	59 1754 units	**Calmark Development Corp.** 1990 S. Bundy Dr. 2nd Fl. Los Angeles, Calif. 90025 John M. Huskey	This subsidiary of Calmark Properties Inc. in fiscal year ended 1/31/89 built and sold 43 single-family detached units for $5,460,000 and 42 single-family attached units for $5,271,000. It also built 1421 apartments with a market value of $87,500,000 for investors. Firm built additional 248 apartments with a market value of $15,000,000 for its own investment. Income from land sales totaled $16,900,000. Rental income and management fees accounted for $1,500,000. Interest income seller carry backs brought $1,600,000. Detached product averages 1850 sq. ft. of space for $129,000. Attached product averages 1700 sq. ft. of space for $129,000. Rental apartments average 600 sq. ft. of space for $650 a month. Sales were to childless couples (50%), retirees (25%) and empty nesters (25%). Firm is active in Calif. (95%) and Nev. (5%). It subbed out 81 to 99% of its work. Subsidiary operations include Calmark Homes of Nev. Firm employs between 51 and 100 people.
98 **$133,034**	105	221 467 units	**Hofmann Co.** P.O. Box 907 Concord, Calif. 94522 K. H. Hofmann	This privately held company in fiscal year ended 5/31/88 built and sold 418 single-family detached units for $62,547,600 and 49 single-family attached units for $5,873,900. Non-res construction of warehouses accounted for $4,980,000. Income from land sales totaled $31,113,000. Rental income and management fees were $11,920,000. Miscellaneous income accounted for $16,599,700. Detached product averages 1850 sq. ft. of space for $149,635. Attached product averages 1400 sq. ft. of space for $114,900. Apartment condominiums average 1102 sq. ft. of space for $120,883. Sales were to families (67%), childless couples (13%), empty nesters (9%), singles (8%) and retirees (3%). Firm builds only in Calif. It subbed out 61 to 80% of its work. Company employs more than 100 people full time.
99 **$131,671**	99	100 1161 units	**Continental Homes Holding Co.** P.O. Box 60010 Phoenix, Ariz. 85082 Kathleen Wade, Donald Loback	In fiscal year ended 5/31/88 this publicly held corporation built and sold 1161 single-family detached units for $115,069,000. Land sales income totaled $16,573,000. Miscellaneous income accounted for $29,000. Detached product averages 1800 sq. ft. of space for $100,000. Firm is active in Ariz. (88%), Colo. (7%) and Calif. (5%). Subsidiary operations include Continental Homes Inc., Scottsdale, Ariz., CHI Construction Co., Scottsdale, Ariz. and L&W Investments Inc., Scottsdale, Ariz. Firm subbed out all of its work. It has more than 100 full-time employees.
100 **$131,646**	136	101 1158 units	**Regis Homes Corp.** 5120 Campus Dr. Newport Beach, Calif. 92660 Geoffrey L. Stack	Privately held company in calendar year 1988 built 254 apartments with a market value of $24,775,000 for investors. It also built 904 apartments with a market value of $95,895,000 for its own investment. Non-res construction of shopping centers had a market value of $1,500,000. Rental income and management fees accounted for $3,252,000. Miscellaneous income totaled $6,224,000. Rental apartments average 1000 sq. ft. of space for $1000 a month. Firm builds only in Calif. It subbed out 81 to 99% of its work. Company has more than 100 full-time employees.

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Australian-based L.J. Hooker Homes sells 1136 new homes in the South and Southwest

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
101 **$131,294**	199	77 1389 units	**Robert Randall Co.** 9500 S. W. Barbur Blvd. #300 Portland, Ore. 97219 Robert D. Randall	This privately held company in fiscal year ended 7/31/88 built 1389 apartments with a market value of $91,000,000 for its own investment. Remodeling and renovation jobs accounted for $600,000. Land sales income was $6,300,000, rental income and management fees were $24,745,000. Miscellaneous income accounted for $8,649,000. Rental apartments average 810 sq. ft. of space for $575 a month. Company is active in Calif. (90%), Ore. (5%) and Wash. (5%). Subsidiary operations include KR West Co. Inc., CTL Management Inc. and Pacific Frontier Wood Markets. Firm subbed out all of its work.
102 **$130,846**	68	106 1136 units	**L.J. Hooker Homes** 6000 Live Oak Parkway Ste 113 Norcross, Ga. 30093 Brian McGregor	In calendar 1988, this subsidiary of the Sydney, Australia-based Hooker Corp. Ltd., built and sold 1008 single-family detached houses for $105,272,100 and 128 single-family attached houses for $7,338,700. Land sales generated income of $18,235,700. Active 35% in Fla., 20% each in Ariz. and Ga., 15% in Texas, and 10% in Va.
103 **$128,000**	113	332 208 units	**Towne Properties** 1055 St. Paul Pl. Cincinnati, Ohio 45202 Neil Bortz, Marvin Rosenberg	This privately held company in calendar 1988, built 16 single-family attached houses sold for $3,100,000 and built 192 apartments for its own investment valued at $12,500,000. Five remodeling jobs generated $4,200,000. Non-residential construction was $44,800,000. Other income came from land sales of $5,800,000, rental income and management fees of $55,300,000 and recreational fees of $2,300,000. Subsidiary is Towne Building Group Inc., Cincinnati, Ohio, active in construction, land development and acquisition. Detached houses average 2200 sq. ft. and sell for $225,000. Attached houses average 2700 sq. ft. and sell for $190,000. Apartments average 800 sq. ft. and rent for $525 a month.
104 **$127,940**	61	181 620 units	**Gulfstream Land & Dev.** 861 Douglas Avenue Altamonte Springs, Fla. 32714 Roy T. Dye	Subsidiary of Good/Gulfstream Holding Corp. built 519 houses for $57,791,000 and 101 for-sale attached units for $10,048,000. Land sales totaled $54,066,000 and other income (interest, clubs, utilties and miscellaneous) amounted to $6,035,000. Subsidiaries include Bel Aire Homes of Orlando and Gulfstream Homes of Tampa. Houses average 1600 sq. ft. and sell for $99,500. Attached units average 1890 sq. ft. and sell for $111,400. Active solely in Fla. Has 51 to 100 employees.
105 **$127,747**	115	88 1252 units	**Oriole Homes Corp.** [illegible]1 N.W. 24th St. Pompano Beach, Fla. 33064 Richard D. Levy	This publicly held company is a master limited partnership traded on the American Stock Exchange. In calendar year 1988, company built and sold 253 single-family detached houses for $34,083,362 and 839 single-family attached houses for $70,783,536. Land sales generated $7,262,482 and other sources accounted for $8,417,632 in income. Total dollar volume is greater than that listed in annual report due to the construction of 160 apartments built for own investment and valued at $7,200,000. After tax net income was 8.32%.
106 **$127,500**	104	71 1494 units	**San-T Development Corp.** 10769 Woodside Ave. Santee, Calif. 92071 M. L. Lawrence, Art Thompson	Privately held company in calendar year 1988 built and sold 450 single-family detached units, 540 single-family attached units and sold 504 apartments to investors for total revenues reported. Detached product averages 1400 sq. ft. of space for $125,000. Attached product averages 1200 sq. ft. of space for $90,000. Rental apartments average 950 sq. ft. of space for $700 a month. Sales were to childless couples (45%), families (35%), singles (10%), empty nesters (8%) and retirees (2%). Firm is active in Calif. (90%), Ariz. (5%) and Colo. (5%).
107 **$125,931**	220	202 544 units	**Silver Cos.** P.O.Box 7566 Fredericksburg, Va. 22404 Larry Silver, Edward Minniear	Privately held company in calendar year 1988 built and sold 287 single-family detached units for $27,788,662 and 217 single-family attached units for $22,192,675. Firm also built 40 apartments with a market value of $2,200,000 for its own investment. Non-res construction of shopping centers, office buildings, hotels, motels, restaurants, retail stores and recreational buildings totaled $31,166,180. Land sales accounted for $21,120,568. Rental income and management fees were $11,156,213. Miscellaneous income was $10,307,282. Sales were to singles (30%), families (30%), childless couples (25%), retirees (10%) and empty nesters (5%). Firm is active in Va. (90%) and Ind. (5%). It subbed out 81 to 99% of its work.
108 **$125,547**	197	197 554 units	**Long Signature Homes Inc.** 13601 Office Pl. Ste. 201 Woodbridge, Va. 22192-4213 F. Gary Garczynski	Privately held company in calendar year 1988 built and sold 311 single-family detached units for $88,700,000. It also built and sold 243 single-family attached units for $31,500,000. Land sales income was $5,329,000. Rental income and management fees were $18,000. Sales were to families (50%), childless couples (25%), singles (12%), retirees (7%) and empty nesters (5%). Firm subbed out 81 to 99% of its work. It has more than 100 full-time employees.
109 **$120,700**	95	391 60 units	**Heritage Dev. Group Inc.** Heritage Village Southbury, Conn. 06488 Henry J. Paparazzo	This privately held company in calendar year 1988 built 60 single-family attached houses for $18,000,000. The company also built 60 units of high-rise residential construction for a sales volume of $13,200,000. Non-residential construction generated $12,000,000. The company builds retail stores, office and recreational buildings. Other income came from land sales and other real estate ($25,000,000); rental income and management fees ($6,000,000); and recreation, utilities and other commercial operations ($46,500,000). Single-family attached homes average 1600 sq. ft. in size and sell for an average price of $300,000. Condominiums average 1200 sq. ft. and sell for $220,000. Sales were 65% to empty nesters, 20% to retirees, 10% to singles and 5% to young marrieds. Active in N.Y. (70%) and Conn. (30%).
110 **$120,605**	166	209 513 units	**Kettler Brothers Inc.** 9426 Stewartown Road Montgomery Village, Md. 20879 Clarence E. Kettler	This privately held company in calendar year 1988 sold 97 single-family detached houses for $52,587,542 and 416 single-family attached houses for $32,355,431. Non-residential construction generated $10,047,672. Company builds warehouses, office and recreational buildings. Other income came from land sales ($16,825,137) and resort and conference center ($8,789,483). Principle activities of company subsidiary Hidden Valley Resort and Conference Center, Somerset, Pa., are home building, resort and conference center. In Washington area, single-family detached houses average 2800 sq. ft. and sell for $267,800, single-family attached average 1550 sq. ft. and sell for $140,200 and apartment/condos average 1000 sq. ft. and sell for $89,600. In Pa., single-family detached average 2100 sq. ft. and sell for $160,400, attached average 1800 and sell for $124,850 and apartment/condos average 970 and sell for $90,077. Buyers are 39% singles, 33% young married without children, 26% families and 2% retirees. Company is active in Md. (66%), Washington, D.C. (18%) and Pa. (16%).

THE 400

Weekley Homes—moving up 123 notches—proves that builders can make a living in Texas

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
111 **$120,452**	97	127 991 units	**Elliott Homes Inc.** 11093 Sun Center Drive Rancho Cordova, Calif. 95670 Harry C. Elliott III	This privately held company in fiscal year ended 10/31/88, built and sold 981 single-family detached houses for $104,275,000 and 10 single-family attached houses for $657,000. Non-residential construction generated $500,000. Other income was generated from $8,500,000 in land sales and $6,520,000 in rental income and management fees. Single-family detached houses average 1800 sq. ft. and sell for $127,000. Condos average 1200 sq. ft. and sell for $60,000. Apartments average 800 sq. ft. with an average monthly rental of $580. Buyers are 36% families, 34% young marrieds without children and 10% each of singles, empty nesters and retirees. Active 80% in Calif. and 20% in Ariz.
112 **$120,000**	64	70 1528 units	**Prometheus Development Co.** 2600 Campus Drive San Mateo, Calif. 94403 Sanford Diller	This privately held company in calendar year 1988 built 1528 apartment units for own investment valued at $120,000,000. Rental housing accounts for company's entire volume. Calprom, San Mateo, Calif., is construction subsidiary. Apartments average 800 square feet. Company active exclusively in Calif. Recent projects include the 498-unit Mansion Grove project in Santa Clara, the 456-unit Hacienda Gardens in Pleasanton and 204-unit Sunset Ridge in Sunnyvale.
113 **$118,597**	144	110 1095 units	**Drees Co.** 211 Grandview Dr., #300 Covington, Ky. 41017 Ralph A. Drees	This privately held company in fiscal year ended 3/31/89 built and sold 705 single-family detached houses for $84,162,000, 188 single-family attached houses for $16,374,000 and 202 apartments built for its own investment valued at $9,560,000. Non-residential construction generated $3,777,473. Other income came from $3,724,000 in rental income and management fees and $1,000,000 in management fees-partnerships. Single-family detached houses average 2100 sq. ft. and sell for $125,400, single-family attached average 1200 sq. ft. and sell for $95,500 and apartments average 801 sq. ft. and rent for $476 a month. Buyers are 30% singles, 30% young married without children, 20% families, 15% empty nesters and 5% retirees. Company active in Ohio (35%), Ky. (30%), Texas (27%) and Ga. (8%).
114 **$118,470**	176	256 354 units	**Miller and Smith Cos.** 1568 Spring Hill Rd. McLean, Va. 22102 Gordon V. Smith	This privately held company in calendar year 1988 built and sold 91 single-family detached houses for $20,400,000 and 263 single-family attached houses for $42,400,000. Non-residential construction generated $12,400,000. Other income includes $18,500,000 in land sales, $670,000 in rental income and management fees and $24,100,000 from savings and loan, mortgage company. Single-family detached houses average 2370 sq. ft. and sell for $224,000 and single-family attached houses average 2080 sq. ft. and sell for $161,000. Buyers are 41% young marrieds, 27% empty nesters, 23% families, 6% singles and 3% retirees. Company active in Va. (78%) and Md. (22%).
115 **$117,899**	238	130 982 units	**Weekley Homes Inc.** 1300 Post Oak Blvd. Houston, Texas 77056 David M. Weekley	This privately held company in calendar year 1988 built and sold 982 single-family detached homes for $117,899,565. Single-family detached homes account for company's entire sales volume. Subsidiary is Custom Classics of Houston and Austin, Texas, which designs and builds custom homes. Production homes average 2780 sq. ft. in size and sell for an average price of $115,000. Buyers are 55% families, 22% young marrieds without children, 9% empty nesters, 8% singles and 6% retirees. Company active exclusively in Texas, and operates in Austin, Dallas and Houston.
116 **$117,649**	168	41 2464 units	**Hunt Building Corp.** P.O. Box 9368 El Paso, Texas 79984 M. L. Hunt	This privately held company in fiscal year ended 12/31/88 built 100 single-family detached houses for $4,688,000 and 2364 single-family attached houses for $84,227,471. One remodeling and rehabilitation job generated $3,450,000. Other income from $10,285,000 in land sales, $13,158,523 in rental income and managment fees and $1,840,754 unidentified as to source. Detached houses average 1275 square feet and attached average 1150 sq. ft. Recent projects in Calif., are in Fort Ord and Fort Irwin. Other housing is in Fort Polk, La., and Fort Jackson, S.C. Company active in Calif. (50%); La. (15%); Mo. (10%); Wash., S.C., Texas and Va., (each 5%); Ariz. (3%); and N.M. (2%).
117 **$117,055**	107	89 1251 units	**Barnett-Range Corp.** P.O. Box 8189 Stockton, Calif. 95208 Hal W. Barnett	This privately held company in calendar year 1988 built and sold 410 single-family detached houses for $32,639,930 and 841 apartments for investors for $83,258,666. Rental income and management fees generated $1,156,848. Detached houses average 1800 sq. ft. and sell for $160,000. Apartments average 850 sq. ft. and rent for $900 a month. Company active exclusively in Calif.
118 **$116,894**	151	53 1921 units	**Summit Properties** 212 S. Tyron St. #800 Charlotte, N.C. 28281 William F. Paulsen	This privately held company in fiscal year ended 12/31/88 built 1921 apartments for own investment valued at $93,484,000. Other income generated from rental income and management fees of $20,138,000 and other fees of $3,272,000. Apartments average 883 square feet and rent for an average of $528 a month. Renters are 50% singles, 25% young marrieds without children, 10% each empty nesters and retirees and 5% families. Company is active in Ohio (34%), Ga. (26%), N.C. and Fla. (each 12%), and S.C. and Md. (each 8%).
119 **$116,016**	93	72 1464 units	**Embrey Investments Inc.** 750 E. Mulberry St. San Antonio, Texas 78212 Walter Embrey Jr.	This privately held company in fiscal year ended 12/31/88, built and held for its own investment 1464 apartments valued at $87,840,000. Non-residential construction generated $7,350,000. Other income came from $5,200,000 in land sales, $12,839,621 in rental income and managment fees and $2,786,526 in development fees. Apartments average 800 sq. ft. and rent for an average of $600 a month. Active in Fla. (55%), Md. (20%), Ill. (15%) and Tenn. (10%). Subsidiaries include Embrey Construction, multifamily general contractor, and Trinity Asset Manager, commercial management.
120 **$114,841**	102	171 653 units	**Levitt Corp.** 7777 Glades Rd. #410 Boca Raton, Fla. 33434 Elliott M. Wiener	In calendar 1988, this subsidiary of Starrett Housing Corp., New York built and sold 624 single-family detached houses for $80,207,000, 29 single-family attached houses for $3,150,000 and 176 apartments for its own investment valued at $18,000,000. Starrett completed the acquisition of Levitt Corp. with the acquisition of the final 20% of stock (Starrett owns 100% of stock) in Jan. 1989. Non-residential construction generated $4,500,000. Company builds self-storage warehouses and other commercial buildings. Other income included $1,845,000 from land sales, $3,400,000 in rental income and management fees and $3,739,000 in miscellaneous and mortgage service fees as well as interest. Sales volume is higher than that reported in annual report due to inclusion of value for apartments built for own investment. Subsidiaries include Levitt Homes Inc., Boca Raton, Fla., a land acquisition and development firm and Levitt Construction Corp. Detached houses average 1800 sq. ft. and sell for $130,000, condos average 1400 sq. ft. and sell for $115,000 and apartments average 700 sq. ft. and rent on average for $1800 a month.

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THE 400

Schult Homes builds 4729 mobile homes, Catalina Homes sells 1302 houses

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
121 **$114,237**	—	187 590 units	**Jones Co.** 13100 Manchester Rd. St. Louis, Mo. 63131 Robert E. Jones	This privately held company in calendar year 1988, built and sold 566 single-family detached houses for $91,098,723 and 22 single-family attached houses for $1,414,882. Land sales of $7,321,153, rental income and managment fees of $4,294,768 and other income of $10,108,281 contributed to annual revenues. Subsidiaries include Community Investment Co., Lake Ozark, Mo., active in condominiums; Sugar Creek Development Co., active in land development, and R. E. Jones Management Co., active in rentals. The last two are in St. Louis.
122 **$114,140**	121	174 639 units	**RecreActions Group** 220 Newport Ctr. Dr. Newport Beach, Calif. 92660 E. James Murar	This privately held company in calendar year 1988 built and sold 29 single-family detached houses for $10,897,975, 569 single-family attached houses for $92,063,962 and 41 apartments built for its own investment with a value of $2,179,000. Land sales generated $9,000,000. Detached houses average 2446 sq. ft. and sell for $403,000, attached houses average 1143 sq. ft. and sell for $162,000 and condos average 712 sq. ft. and sell for $53,000. Active in N.J. (73%) and Calif. (27%). In 1988 the company changed its name from RecreActions Group to RGC.
123 **$113,954**	198	198 553 units	**Emerald Homes L.P.** 5333 N. 7th St., Ste. 310 Phoenix, Ariz. 85014 Philip J. Polich	This publicly held company is a master limited partnership traded on the New York Stock Exchange. In calendar 1988, the company built and sold 553 single-family detached houses for $92,767,000. Land sales of $13,517,000 and other income of $7,670,000 added to company sales volume. Net income was 9.45% of total dollar volume. Houses average 2200 sq. ft. in size and sell for an average price of $167,750. Active in Phoenix, Houston and San Francisco.
124 **$112,000**	204	195 561 units	**California Communities** 3187-A Airway Ave. Costa Mesa, Calif. 92626 George R. Meeker Jr.	In calendar year 1988, this subsidiary of the Los Angeles-based Cal Fed Savings built and sold 361 single-family detached houses for $92,000,000 and 200 single-family attached houses for $20,000,000. Single-family housing construction accounts for the company's entire sales volume. Detached houses average 2450 sq. ft. and sell for $255,000 and attached houses average 850 sq. ft. and sell for $100,000. Active exclusively in Calif.
125 **$111,100**	126	11 6552 units	**Horton Homes Inc.** P.O. Box 581 Eatonton, Ga. 31024 N.D. Horton Jr.	This privately held company in calendar 1988, manufactured and sold 6312 mobile homes for $103,000,000, 200 single-family modular units for $6,300,000 and 40 multifamily modular units for $1,800,000. Active in Ga. (48%), S.C. (12%), Fla. and N.C. (10% each), Ala. (9%), Tenn. (6%), Ky. (3%), and Va. (2%).
126 **$109,103**	128	98 1170 units	**Summerhill Development** 777 California Ave. Palo Alto, Calif. 94304 Roger Swanson	In calendar year 1988, this privately held subsidiary of Marcus & Millichap built and sold 175 single-family attached houses for $3[illegible],635,150 and built 995 apartments for its own investment valued at $68,331,000. Rental income and management fees generated volume of $7,247,010. Apartments average 800 square feet in size and rent in a range from $700 to $1000 a month. Active exclusively in Calif.
127 **$108,538**	111	19 4901 units	**Schult Homes Corp.** P.O. Box 151 Middlebury, Ind. 46540 W. E. Wells	In calendar 1988, this publicly held master limited partnership (NASDAQ) manufactured and sold 4729 mobile homes for $103,213,000 and 172 single-family modular units for $5,325,000. Active in Ind., Pa., Md., Minn., Kan., Ariz. and Texas.
128 **$108,212**	123	212 508 units	**Larwin Construction Co.** 16255 Ventura Blvd. Encino, Calif. [illegible] Michael [illegible]	This privately held company in calendar 1988 built and sold 508 single-family detached houses for $[illegible]. Land sales generated $1,501,000. Rental income and management fees contributed $5,899,000 of total annual sales volume. Subsidiary is Larwin-Rosedale Properties [illegible] industrial development. One new project is a 60,000-square-foot building in northern Los Angeles County. Detached houses average 1800 sq. ft. in size.
129 **$107,688**	—	82 1302 units	**Catalina Homes** 644 Ferguson Dr. Orlando, Fla. [illegible] W. S. Drosz Jr.	In calendar 1988, this subsidiary of American Pioneer Savings Bank, Orlando, Fla., built and sold [illegible] single-family detached houses for $93,882,837 and 191 single-family attached houses for $10,556,936. Other income came from one remodeling and rehabilitation job that generated $125,000. Non-residential construction added $3,123,918 to total sales volume. Subsidiary is Jonathon Homes, Indianapolis, active in home building. Active in Fla. (67%) and [illegible]
130 **$107,247**	147	267 321 units	**David Cutler Group** 512 Township Line Rd. Blue Bell, Pa. 19422 David Cutler	This privately held company in calendar year 1988 built and sold 242 single-family detached houses for $67,746,385 and 79 single-family attached houses for $14,615,000. Other income came from land sales of $24,526,231 and rental income and management fees of $360,000. Detached houses average 3200 sq. ft. and sell for $300,000 on average and attached average 2700 sq. ft. and sell for $180,000. Active exclusively in Pa.
131 **$106,918**	75	147 792 units	**Del E. Webb Communities Inc.** P.O. Box 29040 Phoenix, Ariz. 85038 Philip J. Dion	In calendar 1988, this publicly held corporation, traded on the New York Stock Exchange and PSE, built and sold 792 single-family detached houses for $101,204,000. Land sales of $1,630,000 and other income of $4,084,000 accounted for the rest of the company's sales volume. Average sales price of houses is $121,640. Communities in the Sun Belt are targeted exclusively to retirees. Active in Ariz. (50%) and Nev. (50%). The company opened its latest retirement community in Las Vegas in 1988. Sun City Summerlin is a 1050-acre master-planned community.
132 **$106,585**	135	329 212 units	**Custom Living Communities Inc.** 375 Route 24 Chester, N.J. 07930 Eugene J. Long	This privately held company in calendar year 1988 built and sold 92 single-family detached houses for $44,629,898 and 120 single-family attached houses for $22,314,828. The company also did 104 remodeling and rehabilitation jobs that generated $11,589,740. Land sales added $28,051,184. Detached houses average 3000 sq. ft. and sell for $450,000. Attached houses average 1400 sq. ft. in size and sell for $220,000. Condos average 800 sq. ft. and sell for $150,000. Buyers are 55% families, 30% young married without children, 10% empty nesters and 5% singles. Active in N.J. (50%) and Calif. (50%).
133 **$106,425**	119	170 664 units	**John Wieland Homes** P.O. Box 87363 Atlanta, Ga. 30337 John Wieland	This privately held company in calendar 1988 built and sold 661 single-family detached houses for $105,800,500 and 3 single-family attached houses for $624,500. Single-family sales account for the firm's entire revenue. Detached houses average 2700 sq. ft. in size and sell for an average price of $165,000. Attached houses average 2400 sq. ft. in size and sell for an average price of $160,000. Wieland plans to enter the remodeling business in 1989.

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Altman finds Florida is ripe for rentals, Hoffman Group offers lifetime warranty

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
134 **$105,929**	141	**111** 1083 units	**Beazer Properties Inc.** 4286-D Memorial Drive Decatur, Ga. 30032 Jerald Cohn	In calendar 1988, this subsidiary of Beazer PLC, Bath, England, built and sold 1083 single-family detached houses for $100,951,000. Land sales of $4,978,000 accounted for the rest of the firm's annual sales volume. Subsidiaries include Cohn Communities Inc., Atlanta, Phillips Builders Inc., Nashville, Tenn., Squire Homes Inc., Charleston, S.C., and Charlotte, N.C., all are involved in home building. Commercial and industrial development subsidiaries include Beazer Developments Inc., Atlanta, and Beazer Developments West, San Francisco. Houses average 1500 sq. ft. in size and sell for $93,214. The parent company builds and sells 6000 houses a year in England. Active in Tenn. (34%), N.C. (31%), Ga. (28%) and S.C. (7%).
135 **$105,700**	—	**114** 1070 units	**Evans Withycombe Inc.** 4455 E. Camelback Road Phoenix, Ariz. 85018 Stephen O. Evans	This privately held company in calendar 1988 built and sold 40 single-family detached houses for $5,000,000 and 30 single-family attached houses for $2,700,000. The company also built 220 apartments for investors for $9,500,000 and 780 apartments held for own investment with a value of $39,000,000. Three remodeling and rehabilitation jobs added $1,500,000. Non-residential construction generated $2,200,000. Other sales volume came from rental income and management fees of $45,800,000. Detached houses average 1300 sq. ft. and sell for $90,000. Attached houses average 1600 sq. ft. and sell for $125,000. Apartments average 950 sq. ft. and rent for $600 a month. Buyers are 35% young marrieds without children, 20% each families, empty nesters and retirees, and 5% singles. Active exclusively in Ariz.
136 **$105,000**	278	**104** 1143 units	**Altman Development** 2300 Corporate Blvd.NW Boca Raton, Fla. 33431 Joel L. Altman	This privately held company in calendar 1988, built and sold 166 apartments for $14,000,000. The company also built 977 apartments for its own investment with a value of $58,900,000. Rental income and management fees generated $32,100,000. Apartments average 980 sq. ft. in size and rent for an average of $750 a month. Active in Fla. (75%) and Ill. (25%).
136 **$105,000**	233	**160** 720 units	**GlenFed Development Corp.** 16601 Ventura Blvd. Encino, Calif. 91436 Robin Berglund, Mel Wynn	This subsidiary of Glendale Federal Savings in 1988 built 366 single-family detached houses for $65,000,000, 273 single-family attached units for $36,000,000 and 81 apartment units for investors for $4,000,000. Detached houses averaged 2000 sq. ft. and sold for $180,000 and attached homes averaged 1500 sq. ft. and sold for $135,000. Apartments averaged 900 sq. ft. and rented for $675 a month. Active solely in Calif. Sells to singles (25%), families (30%), young marrieds (20%), empty nesters (15%) and retirees (10%). Has 51-100 employees. Largest project is in San Juan Capistrano. Building 307 townhouses at Mesa Vista and 196 houses at Loma Vista.
138 **$104,850**	317	**157** 739 units	**Paragon Homes Inc.** 1448 15th St. Santa Monica, Calif. 90404 Bud Garfield	This privately held company in calendar 1988, built and sold 465 single-family detached houses for $73,549,718 and 274 single-family attached houses for $29,751,741. Land sales of $644,000 and rental income and management fees of $904,869 contributed to sales volume. Paragon Development Co., Santa Monica, Calif., is a subsidiary active in commercial centers. Detached houses average 1633 square feet and sell for $164,466. Condos average 1139 sq. ft. and sell for $114,630. Buyers are 39% families, 31% young marrieds without children, 19% singles, 8% empty nesters and 3% retirees. Active exclusively in Calif.
139 **$104,713**	155	**16** 5894 units	**Commodore Corp.** P.O.Box 577 Goshen, Ind. 46526 Thomas L. Underwood	This privately held company in calendar year 1988 manufactured and sold 5894 mobile homes for $104,713,000. Subsidiaries include Commodore Homes of Pennsylvania, Commodore Homes of Virginia, Commodore Homes of Indiana, Frontier Homes, Brookwood Homes, and Colony Factory Crafted Homes, all of which are mobile home manufacturers. Houses average 1100 sq. ft. and sell for $17,766. Active in Pa. (43.2%), Ind. (27.1%), Ala. (17.4%) and Va. (12.3%).
140 **$104,240**	159	**190** 572 units	**Hoffman Group Inc.** 300 Park Blvd., #515 Itasca, Ill. 60143 Norman M. Hassinger Jr.	In fiscal year ended 11/30/88, this privately held company built and sold 301 single-family detached houses for $57,200,000 and 271 single-family attached houses for $39,300,000. Other volume came from land sales of $4,290,000, rental income and management fees of $3,230,000 and other sources of $220,000. Detached houses average 2400 sq. ft. and sell for $190,000. Attached houses average 1650 sq. ft. and sell for $145,000. Buyers are 66% families, 16% empty nesters, 7% young married without children, 6% retirees, and 5% singles. Hoffman is now offering a lifetime warranty program to its buyers. Active exclusively in Ill.
141 **$103,550**	197	**119** 1030 units	**Forecast Mortgage Corp.** 10670 Civic Center Dr. Rancho Cucamonga, Calif. 91730 James P. Previti	This privately held company in calendar 1988, built and sold 1030 single-family detached houses for $97,850,000. Land sales of $300,000, rental income and management fees of $1,800,000 and interest income of $3,600,000 added to sales volume. Houses average 1350 sq. ft. and sell for an average price of $95,000. Buyers are 50% families, 20% young marrieds without children, and 10% each, singles, empty nesters and retirees. Active exclusively in Calif.
142 **$103,127**	98	**155** 750 units	**McBail Co.** 3200 Danville Blvd. Alamo, Calif. 94507-1914 Wesley Bailey, E. J. McGah	This privately held company in calendar 1988, built and sold 594 single-family detached houses for $83,252,000 and 92 single-family attached houses for $14,900,000. The company also built 64 apartments for its own investment valued at $3,200,000. Other income came from $183,000 in land sales and $1,592,000 in rental income and management fees. Subsidiaries include Bailey & McGah and Dutton, McCah & Bailey, Nev., Casa Grande Co., Ariz., and Sequoia Homes, Calif. All are involved in residential homebuilding. Detached houses average 2000 sq. ft. and sell for $140,150. Attached houses average 1600 sq. ft. and sell for $185,700. Condos average 850 sq. ft. and sell for $123,000. Apartments average 850 sq. ft. and rent for $625 a month. Buyers are 70% families, 10% each, singles and young married without children, and 5% each, empty nesters and retirees. Active in Calif. (52%), Nev. (47%) and Ariz. (1%).
143 **$103,000**	103	**122** 1019 units	**Wallick Construction Co.** P.O. Box 1023 Columbus, Ohio 43216 Jack L. Wallick	This privately held company in calendar 1988, built and sold 176 single-family detached houses for $18,000,000 and 294 single-family attached houses for $17,000,000. The company also built and sold 380 apartments for $16,000,000 and built 169 apartments held for own investment with a value of $15,000,000. Non-residential construction generated $5,000,000. Rental income and management fees contributed $32,000,000. Subsidiaries include Gemstar Homes Inc., a single-family home builder, and Wallick Properties Inc., a property management firm, both located in Columbus, Ohio. Detached houses average 1400 sq. ft. and sell for $100,000. Attached houses average 1200 sq. ft. and sell for $80,000. Condos average 1200 sq. ft. and sell for $120,000. Apartments range from 800 to 1000 sq. ft. Active in Ohio, Ky. and Ind.

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Picerne Properties of Rhode Island builds in Florida, Maine, Nevada, too

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
144 **$102,427**	—	**185** 607 units	**Homestead Development** 50 Oak Ct. Suite 200 Danville, Calif. 94526 Fred W. Hull	This privately held company in calendar 1988 built and sold 320 single-family detached houses for $65,835,074 and 287 single-family attached houses for $36,592,500. Detached houses average 1782 sq. ft. and sell for an average price of $205,735. Attached houses average 1102 sq. ft. and sell for an average price of $127,500. Buyers are 43% families, 26% young marrieds without children, 21% singles, 8% empty nesters and 2% retirees. Active exclusively in Calif.
145 **$101,879**	172	**233** 418 units	**Fairfield Homes Inc.** 12876 Harbor Dr. Woodbridge, Va. 22192 John V. Neill Jr.	This privately held company in calendar 1988 built and sold 347 single-family detached houses for $89,363,930 and 71 single-family attached houses for $12,516,065. Detached houses average 2600 sq. ft. and sell for an average price of $250,000. Attached houses average 2000 sq. ft. and sell for an average price of $150,000. Buyers are 45% families; 15% each, young marrieds without children, empty nesters and retirees, and 10% singles. Company recently built a manufacturing plant. Active Va. (77%), Md. (21%), and Fla. (2%).
146 **$100,100**	161	**87** 1266 units	**Tompkins Heritage Homes** 1637 E. Vine St. Kissimmee, Fla. 32743 Thomas N. Tompkins	In fiscal year ended 1/31/89 this privately held company built and sold 886 single-family detached units for $76,000,000. It also built 380 apartments for investors that had a market value of $15,000,000. Income from land sales totaled $4,000,000, rental income and management fees brought $600,000, interest income totaled $4,500,000. Subsidiary operations include Tompkins Heritage Homes, Kissimmee, Fla. Detached product averages 1550 sq. ft. of space for $86,000. Rental apartments average 1027 sq. ft. of space for $475 a month. Firm is active only in Fla.
147 **$98,390**	188	**241** 402 units	**Gentry Cos.** P.O. Box 295 Honolulu, Hawaii 96809 Thomas H. Gentry	For calendar year 1988 this privately held company built and sold 251 single-family detached homes for a sales volume of $33,890,783. Company also built 151 single-family attached units for sales of $14,900,000. Non-residential construction totaled $8,900,000 and land sales brought $29,600,000. Rental income and management fees totaled $9,500,000 and other income was $1,600,000. Company has seven subsidiary operations based in Hawaii.
148 **$98,000**	228	**156** 742 units	**Friendswood Development Co.** P.O. Box 2567 Houston, Texas 77001 John E. Walsh Jr.	For calendar year 1988 this subsidiary of the Exxon Corp., and own subsidiary Village Builders, Houston, built and sold 742 single-family detached units for sales of $98,000,000. The homes averaged 2700 sq. ft. and sold for an average price of $132,000. Company sold 60% of homes to families, 25% to young married couples, and 5% each to retirees, empty-nesters and singles. Company builds only in master-planned communities in Texas. Company employs 51-100 people and subcontracts 81-99% of its construction work.
149 **$97,930**	73	**66** 1624 units	**Picerne Properties** 75 Lambert Lind Highway Warwick, R.I. 02886 Ronald R.S. Picerne	For calendar year 1988 this privately held company and subsidiaries Picerne Development Corp. of Ariz., Picerne Development Corp. of Fla., and Kent Construction of R.I., built and sold 1572 apartments for its own investment at a market value of $73,320,000. Company also built 52 single-family homes for sales of $10,110,000. Non-residential construction brought the company $10,000,000 and rental income and management fees totaled $4,500,000. The single-family homes averaged 2000 sq. ft. and averaged $200,000. Families bought 80% of units and 20% went to young married couples.
150 **$97,275**	182	**344** 190 units	**Edward R. Carr & Assoc.** 7535 Little River Turnpike Annandale, Va. 22003 Edward R. Carr	For calendar year 1988, this privately held company built and sold 122 single-family attached units for sales of $24,700,000 and 68 single-family detached homes for sales of $18,535,000. Non-residential construction brought $5,430,000. Other income included $30,565,000 from land sales and $18,045,000 from rental income and management fees. The detached homes averaged 2400 sq. ft. and sold for an average price of $272,500. The attached units averaged 1800 sq. ft. for a price of $202,500. The company builds only in Va.
151 **$96,800**	211	**245** 398 units	**Anastasi Construction** 1200 Aviation Blvd. Redondo Beach, Calif. 90278 Wayne G. Anastasi	For fiscal year ended 11/30/88, this privately held company built and sold 137 single-family attached units for sales of $47,250,000 and 53 single-family detached units for $33,050,000. Company also built 208 apartments for its own investment at a market value of $15,000,000. Land sales brought an additional $1,500,000. The detached houses averaged 3900 sq. ft. and sold for an average price of $600,000. The detached homes averaged 2300 sq. ft. and sold for $350,000. Apartments averaged 850 sq. ft. and rent for about $700. Young married couples bought 60% of units, with singles and families buying 20% each.
152 **$96,461**	133	**136** 874 units	**Burg & DiVosta** 10358 Riverside Drive Palm Beach Garden, Fla. 33410 Otto B. DiVosta	For calendar year 1988 this privately held company built and sold 372 single-family detached homes for sales of $57,669,000 and 502 single-family attached homes for sales of $38,792,000. The detached homes averaged 2000 sq. ft. and sold for about $135,000 and the attached houses averaged 1300 sq. ft. for an average price of $75,000. Company builds only in Fla., and currently has projects under construction in West Palm Beach, Boynton Beach, Jupiter, Stuart and Hobe Sound. Company has more than 100 employees.
153 **$96,373**	—	**213** 506 units	**Kathryn G. Thompson** 15510 Rockfield Ste C Irvine, Calif. 92718 Kathryn G. Thompson	For calendar year 1988 this privately held company built and sold 289 single-family detached units for sales of $68,136,289 and 217 single-family attached units for sales of $28,237,413. The detached units averaged 1433 sq. ft. and sold for an average price of $236,000. Attached units averaged 1169 square feet for an average price of $130,000. Company builds only in Calif., and has 51-100 employees and subcontracts 100% of its construction activity.
154 **$96,157**	134	**128** 989 units	**Amrep Corp.** 10 Columbus Circle New York, N.Y. 10019 Lawrence T. Perlmutter	For calendar year 1988 this publicly held corporation and subsidiaries Amrep Southwest Inc., Amrep Southeast Inc., and Amrepco built and sold 895 single-family detached units for sales of $53,264,135 and 94 single-family attached units for $5,187,766. Land sales totaled $6,787,000 and rental income and management fees were $343,000. Distribution operations and utility companies generated an additional $30,576,000. The detached homes averaged 1300 sq. ft. and sold for an average price of $59,490.
155 **$93,570**	217	**335** 206 units	**C-I/Mitchell & Best Co.** 1686 E. Gude Dr. Rockville, Md. 20850 Robert L. Mitchell	For calendar year 1988, this privately held company built and sold 73 single-family detached homes for sales of $43,520,000 and 86 single-family attached homes for sales of $34,652,000. Company also built 47 apartments for its own investment at a market value of $9,831,000. Non-residential construction brought an additional $2,006,000 and land sales brought $277,000. Rental income and management fees totaled $2,200,000 and interest and other income was $994,000. The detached homes averaged 3765 sq. ft. and sold for an average price of $596,000. The attached units averaged 2800 sq. ft. for sales $412,500. The apartments averaged 1300 sq. ft. and rent for about $935. Company is only active in Md.

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Engle Group moves up 99 notches, Cavalier manufactures 6210 homes

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
156 **$93,440**	118	65 1632 units	**Shelter Canadian Holdings LTD.** 7 Evergreen Pl. Winnipeg, Manitoba, Canada R3I2T3 Arni C. Thorsteinson	For calendar year 1988, this privately held company built 1600 apartments for investors at a market value of $80,000,000 and 32 single-family attached homes at a sales value of $5,440,000. Rental income and management fees totaled $8,000,000. Total does not reflect Canadian activity, which includes: 400 apartments for $20,000,000, 8 single-family homes for $1,360,000 and $2,000,000 in rental income and management fees. Detached homes averaged 1800 sq. ft. and sold for about $175,000. Apartments average 850 sq. ft. and rent for $575. Company is active in Fla. (20%), Md. (20%), Minn. (20%), Wash. (15%) and Canada (25%).
157 **$92,986**	139	257 344 units	**Cooper Communities** P.O. Box 859 Bentonville, Ark. 72712 Larry B. Cooper	For calendar year 1988, this privately held company built and sold 319 single-family detached homes for a sales volume of $26,863,000 and 25 single-family attached homes for sales of $3,125,000. Land sales accounted for another $38,416,000 and other income, including commercial development, timeshare and building materials resale, totaled $24,582,000. The detached units averaged 1650 sq. ft. and sold for $90,000. The attached units averaged 1850 sq. ft. for an average price of $125,000. Retirees bought 80% of units, families 15%, and empty-nesters 5%. Company builds in Ark. (65%), Tenn. (30%) and S.C. (5%).
158 **$92,735**	257	177 628 units	**Engle Group Inc.** 123 NW 13th St. Boca Raton, Fla. 33432 Alec Engelstein	For fiscal year ended 10/31/88, this privately held company built and sold 426 single-family detached units for sales of $60,634,000 and 202 single-family attached units for $21,344,000. Land sales generated $8,082,000 and rental income and management fees brought $1,894,000. Interest income and miscellaneous other revenue was $781,000. The attached units averaged 1500 sq. ft. and sold for an average price of $105,600 and the detached units sold for about $142,300. The company builds only in Fla., with developments in Cooper City, Jupiter, Lake Worth, Plantation and Palm Beach Gardens. Company has more than 100 employees and subcontracts 100% of construction activity.
159 **$92,435**	210	174 639 units	**Cambridge Homes Inc.** 800 S. Milwaukee Ave. Libertyville, Ill. 60048 Richard J. Brown	For fiscal year ended 11/30/88, this privately held company built and sold 356 single-family detached units for sales of $57,158,000 and 283 single-family attached units for sales of $31,112,000. Non-res construction accounted for $3,500,000 and land sales generated $665,000. The detached units averaged 2350 sq. ft. and sold for an average price of $175,000. The attached units averaged 1150 sq. ft. and sold for $91,000. Building only in Ill., the company sells to families with children (55%), young married couples (15%), singles (15%), empty-nesters (10%) and retirees (5%).
160 **$92,178**	—	367 142 units	**Ambassador Homes Inc.** 8201 N. University Dr. Tamarac, Fla. 33321 Steven W. Epple	For calendar year 1988, this subsidiary of Ambassador Financial Group Inc, Coral Springs, Fla., and subsidiary co.'s, Ambassador Homes Inc., Heritage Quality Construction Co. Inc., and Par Four Inc., built and sold 142 single-family detached homes for a sales volume of $43,032,651. Land sales generated $1,947,148 and rental income and management fees brought $32,500. Other income, including interest and forfeited deposits, totaled $47,166,215. Company builds only in Fla., employing 51-100 people and subcontracting 81-99% of construction activity.
161 **$92,051**	152	14 6210 units	**Cavalier Homes Inc.** 600 M Bank Bldg. Wichita Falls, Texas 76307 Barry Donnell	For calendar year 1988, this publicly held corporation and subsidiary operations Cavalier Homes of Ala. Inc., Brigadier Homes of N.C. Inc., Mansion Homes Inc., and Buccaneer Homes Inc., manufactured and sold 6201 mobile homes for sales of $91,807,630. Company also manufactured 9 single-family modular homes for sales of $244,270. Company sells in Ala. (60%) and N.C. (40%) and employs more than 100 people.
162 **$91,539**	131	137 868 units	**Continental Financial Corp.** P.O.Box 7679 Marietta, Ga. 30065 S. Kent Owings	For calendar year 1988, this privately held company built and sold 868 single-family detached homes for sales of $76,839,000. Subsidiaries include Cambridge Homes, Brighton Homes and Pineland Homes in Atlanta; Superior Homes, Charlotte, N.C.; Northlake Homes, Charleston, S.C.; Bridgewood Homes, Columbia, S.C., and Gulfland Homes, Tampa and Sarasota, Fla. Company also generated land sales totaling $14,700,000. The detached homes averaged 1750 sq. ft. and sold for about $88,500. Company sells to families with children (40%), young married couples (40%), retirees (8%), empty-nesters (7%) and singles (5%). Company is down-scaling product for 1989 and improved interior standards and options in mid- to upper-end product.
163 **$89,669**	130	28 3577 units	**Oakwood Homes Corp.** P.O.Box 7386 Greensboro, N.C. 27407 Nicholas J. St.George	Publicly held company in fiscal year ended 9/30/88 manufactured 3577 mobile homes. These represented a value of $71,867,000. Income from rents and management fees totaled $1,500,000. Income from finance and insurance and investments totaled $16,302,000. Net income was 0.5% of total dollar volume. Firm's subsidiaries include Oakwood Mobile Homes Inc., Greensboro, N.C., Homes by Oakwood, Richfield, N.C., and Oakwood Land Development, Greensboro, N.C. The units averaged 895 sq. ft. in size and sold for $19,000. Firm operates solely in the Southeast and has more than 100 full-time employees.
164 **$89,139**	227	60 1739 units	**Morris General Building** P.O. Box 3632 Chatsworth, Calif. 91313 G.L. Morris	Privately held company, in calendar year 1988 built and sold 7 single-family detached homes for $22,750,000. It also built 1257 apartment units for investors. These had a market value of $33,939,000. It also built 475 apartments for its own investment. These had a market value of $12,350,000. Firm was involved in 11 remodeling jobs. Their market value was $7,152,000. Non-res construction value was $12,320,000. Income from rents and management fees was $628,000. Firm's detached homes averaged 10,000 sq. ft. in size and sold for $3,250,000. Condo apartments had 1200 sq. ft. of space and sold for $27,000. The rental units contained 800 sq. ft. of space and brought $900 a month. Firm is active in Calif. (80%), Ga. (15%), and Wyo. (5%). It subs out 41-60% of its work and has more than 100 full-time employees.
165 **$89,079**	122	162 713 units	**Union Valley Corp.** 2209 Route 9 Howell, N.J. 07731 Herbert Wishnick	Publicly held company (AMEX) in calendar year 1988 built and sold 179 single-family detached homes for $20,935,000 and 534 single-family attached units for $62,806,000. Income from rents and management fees totaled $4,601,000. Other income amounted to $737,000. Net income was 0.4% of the total dollar volume. The firm operates in N.J. (80%) and Del. (20%). Its detached product had an average of 1600 sq. ft. of living space and sold for $160,000. The attached units had an average of 1870 sq. ft. of space and sold for $150,000. The firm's condo units contained 1150 sq. ft. of space and sold for $100,000. It subs out all of its work and has more than 100 full-time employees. The firm also is involved in developing health care and commercial real estate projects. Subsidiaries include Reston Corp., Wilmington, Del., a residential construction firm.

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
166 **$88,839**	143	**167** 685 units	**Winncrest Homes** 9985 Folsom Blvd Sacramento, Calif. 95827 Thomas P. Winn	Privately held company in calendar year 1988 built and sold 607 single-family detached homes for $67,316,486. It also built 78 apartment units for investors. These had a market value of $4,300,000. Income from land sales totaled $17,223,482. Its homes averaged 1355 sq. ft. in size and sold for $110,900. The family market accounted for 37% of its sales. Young marrieds purchased 33% of the product, singles 21%, empty nesters 8% and retirees, 1%. Firm operates solely in Calif. and has single-family detached projects in Elk Grove, Elverta, Sacramento, Cameron Park and Vacaville. It subs out 81-99% of its work and has more than 100 full-time employees.
167 **$88,753**	165	**20** 4845 units	**National Enterprises Inc.** Earl Ave. & Wallace Lafayette, Ind. 47904 David R. Price	Publicly held company (NYSE, Midwest, Pacific) in calendar year 1988 manufactured 4845 single-family panelized units that represented a sales volume of $59,341,000. Panelized units include 1647 single-family detached homes, 2124 attached units, 534 apartments, 390 commercial units and 150 retirement units. Income from general contracting service, interest and other sources was $29,412,000. Company reported a net loss of 1% of its total dollar volume. National Resort Communities of Austin, Texas, is a subsidiary.
168 **$88,400**	206	**313** 246 units	**Pennhill Co.** 3991 MacArthur Newport Beach, Calif. 92660 Thomas E. Tucker	Privately held company in calendar year 1988 built and sold 246 single-family detached homes for $61,500,000. Income from land sales was $26,900,000. The homes averaged 2250 sq. ft. in size and sold for $249,750. The family market accounts for 60% of the firm's sales, young marrieds, 20%, retirees, 10%, singles, 7%, empty nesters 3%. Thomas E. Tucker, chairman is now sole shareholder. Firm added an apartment division in 1988. Firm operates solely in Calif., builds shopping centers, subs out all of its work and has 21-50 full-time employees.
169 **$87,625**	208	**364** 148 units	**Frankel Enterprises** 1845 Walnut St. Philadelphia, Pa. 19103 Benjamin Frankel	Privately held company in calendar year 1988 built and sold 56 single-family detached homes for $23,200,000 and 92 single-family attached units for $28,875,000. Income from land sales was $13,950,000. Rents and management fees brought in $13,800,000 and country club income brought in another $7,800,000. Its detached product had an average of 2850 sq. ft. of living space and sold for $415,000. The attached units had 2100 sq. ft. of space and sold for $250,000. The condo units also had 2100 sq. ft. of space and sold for $285,000. The second home market accounted for 56% of the sales, families, 30%, retirees, 10%, young marrieds, 2%, and singles, 2%. Firm is active solely in Fla., building primary and second home communities. It also is putting up recreational buildings, subs out 81 to 99% of its work and has more than 100 full-time employees.
170 **$87,404**	125	**188** 584 units	**Mitchell Co.** P.O. Box 160306 Mobile, Ala. 36616 John Saint	This subsidiary of Altus Bank, a Mobile, Ala., federal savings bank, in calendar year 1988 built and sold 322 single-family detached homes for $22,330,000 and 10 single-family attached units for $480,000. It also built 252 apartment units. These had a market value of $6,970,000. Non-res construction had a vaue of $23,300,000. Income from land sales was $1,880,000. Rents and management fees brought in $29,474,000. Interest income was $2,970,000. The detached homes averaged 1700 sq. ft. in size and sold for $69,000. The rental units contained 850 sq. ft. and rented for $450 a month. Firm operates in Ala. (17%), La. (24%), Fla. (30%), Miss. (11%), Tenn. (15%) and Ga. (3%). It completed construction of shopping centers and warehouses in 1988. Firm subs out 6l to 80% of its work and has more than 100 full-time employees.
171 **$87,126**	180	**312** 249 units	**Sterling Homes Corp.** 19752 MacArthur Blvd Irvine, Calif. 92715 Robert H. Lintz	Privately held company. During fiscal year ended 12/31/88 the firm built and sold 249 single-family detached homes for $44,762,337. Its non-residential work had a market value of $1,302,600. Income from land sales totaled $6,118,731, from interest, contracting fees and subsidiaries, $34,942,624. Its housing product contained an average of 1700 sq. ft. of space and sold for $179,768. Company is active solely in Calif., is building single-family detached homes in Riverside and Orange counties. It subs out 81-99% of its work and has 51-100 full-time employees.
172 **$87,030**	203	**196** 557 units	**Pasquinelli Construction Co.** P.O. Box 1639 Homewood, Ill. 60490 Bruno A. Pasquinelli	During calendar year 1988 this privately held company built and sold 239 single-family detached homes for $36,519,200 and 318 single-family attached units for $28,944,360. Firm was involved in three rehab jobs that had a market value of $128,000. Commercial construction work had a value of $1,000,000. Non-res work had a value of $6,038,900. Income from land development (partnership and ventures) totaled $14,156,200. Rents and management fees brought in $243,820. Company said land sales and land development are performed under various partnerships and ventures. It is active in Naperville, Schaumburg and Bloomingdale, Ill. Firm builds 90% of its product in Ill. and 10% in N.C. Warehouses and office buildings are part of its portfolio. Firm subs out 61 to 80% of its work and has more than 100 full-time employees. Subsidiaries include Portrait Homes, Alca, Palco Construction Co., ILAP Group, Schick-Gary Partnership and Buffalo Grove Partnership.
173 **$86,753**	215	**216** 501 units	**Covington Development Group Inc.** 2451 E. Orangethorpe Fullerton, Calif. 92631 Loran D. Covington	Publicly held corporation in calendar year 1988 built and sold 319 single-family detached homes for $46,235,000 and 86 single-family attached units for $12,783,000. It also built 96 apartment units for investors. These had a market value of $6,437,000. Income from land sales was $17,339,000, rents and management fees, $614,000, and interest and other sources, $3,345,000. Net income was 3% of total dollar volume. The single-family detached homes had an average of 1500 sq. ft. of living space and sold for $150,000. Its attached product had 1200 sq. ft. of space and sold for $140,000. Company builds 95% of its product in Calif. and 5% in Nev. Recent projects are in Yorba Linda, Placentia, Orange, Windsor and Corona, Calif. and Las Vegas. Firm subs out 81 to 99% of its work and has more than 100 full-time employees.
174 **$85,726**	167	**151** 765 units	**Washington Homes Inc.** 956 Chandler Centre Waldorf, Md. 20602-4802 Geaton A. DeCesaris Jr.	Privately held company was publicly held (NYSE) until 8/2/88 when principals of SDS Development Group acquired it. In fiscal year ended 7/31/88 the firm built and sold 489 single-family detached homes for $60,626,423 and 276 single-family attached units for $22,603,923. Income from land sales was $65,000. Rents and management fees brought in $87,075. Other sources provided an income of $2,344,043. Firm has 80% of its activity in Md., 19% in Va. and 1% in Pa. Average price of its single-family detached homes was $123,980. Average size was 2000 sq. ft. The attached product had 1500 sq. ft. of space and sold for $81,901. Firm plans new product types and a new, aggressive outlook. It subs out all of its work and has more than 100 full-time employees.

Orange Blossom Hills develops its active-adult community in Florida

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
175 $85,160	124	285 293 units	**Richmarr Construction Corp.** 1101 17th St. NW Washington, D.C. 20036 Richard A. Kirstein	District of Columbia area building firm is privately held. In calendar year 1988 it built and sold 266 single-family detached homes for $63,840,000 and 27 single-family attached units for $4,320,000. Firm also built 202 high-rise units. These had a value of $15,000,000. Non-res work projects had a value of $2,000,000. Single-family detached product had an average of 2950 sq. ft. of living space and sold for $240,000. The detached product had 2150 sq. ft. and sold for $160,000. Condo apartments had 750 sq. ft. of space and sold for $140,000. Rental units had 550 sq. ft. of space and rented for $790 a month. Firm operates in Md. (40%), Va. (50%) and D.C. (10%) and also builds warehouses and office buildings. It subs out 81-99% of its work and has more than 100 full-time employees.
176 $82,980	158	399 26 units	**Planned Residential Communities Inc.** 60 Monmouth Park Hwy. West Long Branch, N.J. 07764 Robert M. Kaye	Privately held company in calendar year 1988 built and sold 24 single-family attached units for $4,248,000 and two single-family detached homes for $1,420,000. Firm also did three rehab jobs that had a market value of $2,462,000. Non-res construction value was $8,717,000. Income from rents and management fees was $66,133,000. Firm sold 30% of its product to empty nesters, 26% to young marrieds, 25% to families and 19% to singles. It is active in Mass. (17%), N.J. (3%), Del. (34%) and Ohio (46%). It also builds warehouses. It subs out all of its work and has more than 100 full-time employees.
177 $82,297	162	215 502 units	**First Financial Group** 16830 Ventura Blvd. Encino, Calif. 91436 Jack Shine	Privately held company in calendar year 1988 built and sold 372 single-family detached homes for $68,963,113 and 130 single-family attached units for $13,333,956. The detached homes contained an average of 1700 sq. ft. of space and sold for $92,584. The attached product had 960 sq. ft. of space and sold for $103,364. The firm builds solely in Calif. and has projects in Santa Clarita Valley and Palmdale. It subs out 81 to 99% of its work and has 51 to 100 full-time employees. Subsidiary is American Beauty Homes of Encino, Calif.
178 $81,850	320	112 1075 units	**Orange Blossom Hills Inc.** 10 Paradise Dr. Lady Lake, Fla. 32659 Harold S. Schwartz	Privately held company. During calendar year 1988 it built and sold 1075 single-family modular units. These had a dollar volume of $49,253,853. Firm was involved in three rehab jobs that had a value of $150,000. Non-res construction value was $955,000. Income from land sales was $8,691,100. Rents and management fees totaled $275,068. Other income from retail and other sources was $22,525,442. The product contained an average of 1325 sq. ft. of space and sold for $49,000 to $65,000. Firm builds solely in Fla. Its Orange Blossom Gardens project is an active adult community. It completed development of one side of the project (it is split by a major highway) and is working on the other side. Firm also is involved in warehouses, industrial plants, retail stores, office and recreational buildings and restaurants. It subs out 1 to 20% of its work and has more than 100 full-time employees.
179 $81,314	241	107 1130 units	**Diversified Housing Corp.** 10015 Old Columbia Rd. Columbia, Md. 21046 Kenneth W. Carlson	In calendar year 1988 this privately held company manufactured 394 single-family panelized units that sold for $58,169,749 and 171 multifamily panelized units that sold for $17,412,182. Land sales generated $4,147,102 income. Firm's mortgage operation brought in $1,585,928. The single-family product sold for an average of $147,638 and contained 1800 sq. ft. The attached product sold for $101,825 and had 1400 sq. ft. Half of the product was sold to the family market. Young marrieds accounted for 20%, empty nesters 15%, retirees 10% and singles 5%. Firm operates in Md. (81%), Fla. (18%) and Va. (1%). It subs out all of its work and has more than 100 full-time employees. Firm has 26 projects in Md./Washington/Va. region. It also has 27 projects in Fla. Company says that in all market areas, its product has been updated to include more open spaces, better lighting and a wider selection of features. Firm operates its own mortgage company affiliate as well as a panel facility and land development unit in Md. Subsidiaries include Diversified Land Corp., Diversified Mortgage Corp. and Diversified Building Systems Corp.
180 $81,000	185	46 2364 units	**North American Housing Corp.** P.O. Box 145 Point of Rocks, Md. 21777 R. Carl Benna	Privately held company. During calendar year 1988 it manufactured 1689 single-family modular units that had a sales volume of $62,200,000. It also built 675 multifamily modular units that had a sales volume of $18,800,000. The detached product had an average of 1650 sq. ft. of space and sold for $36,795. The attached units had 1200 sq. ft. of space and sold for $27,900. Firm operates in Md. (21%), Va. (20%), N.J. (16%), Mass. (19%), N.H. (4%), Conn. (4%), N.C. (4%), Pa. (2%). Firm added upper end models to to its portfolio after its Continental Homes aquisition in 1987. It subs out 1 to 20% of its work.
181 $80,563	177	304 265 units	**Van Metre Cos.** 5252 Wingate Ct. Burke, Va. 22015 A.G. Van Metre	Privately held company in calendar year 1988 built and sold 133 single-family detached homes for $34,294,163 and 132 single-family attached units for $21,225,370. Rents and management fees totaled $21,120,644. Income from firm's brokerage operation totaled $3,923,671. The detached product contained 3150 sq. ft. of space and sold for $257,850. The attached product had 2050 sq. ft. of space and sold for $160,798. The family market purchased 39% of the product, young marrieds 21%, empty nesters 18%, singles 13% and retirees 9%. Firm subs out 81 to 99% of its work and has more than 100 full-time employees. It operates solely in Va.
182 $80,500	255	349 176 units	**Cayman Development** 18012 Cowan St. Irvine, Calif 92714 Dave Eadie & Raymond Rutter	This privately held California building firm in calendar year 1988 built and sold 65 single-family detached homes for $42,700,000 and 111 single-family attached units for $37,800,000. The detached product contained an average of 3500 sq. ft. of space and sold for $650,000. The attached product had 2300 sq. ft. of space and sold for $340,000. Young marrieds purchased 57% of the product, families 18%, empty nesters 11%, retirees 10% and singles 4%. Recent projects were built in Huntington Beach, Palos Verdes and Coto de Caza. Firm subs out 81 to 99% of its work and has 21-50 full-time employees.
183 $80,095	154	251 374 units	**Stokes and Co.** P.O. Box 19417 Jacksonville, Fla. 32245 E. Chester Stokes Jr.	Privately held company in calendar year 1988 built and sold 347 single-family detached homes for $36,064,000 and 27 single-family attached units for $4,040,000. Non-res activity brought in $1,000,000. Land sales totaled $32,354,000. Rents and management fees brought in $3,753,000. Development fees and interest income totaled $2,884,000. The detached product had an average of 1650 sq. ft. of space and sold for $90,000. Firm operates solely in Fla. and also is involved in shopping center and golf course clubhouse construction. It subs out 61 to 80% of its work and has more than 100 full-time employees. Subsidiaries include Stokes-Collins & Co., single-family homebuilder, Stokes-O'Steen Communities Inc., resort homebuilder, Stokes-McCaleb Inc., multifamily developer, Stokes Fidelity Group, golf course developer, Stokes-Johnson Inc., general contractor, and Stokes-Johnson Custom Homes Inc., single-family homebuilder.

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Dominion Developments builds 1645 rentals, Calprop Corp. net income is 7% of sales

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
184 **$80,067**	194	152 762 units	**Luckey Co.** P.O. Box 7428 Stockton, Calif. 95207 Thomas A. Luckey	Privately held company in fiscal year ended 3/31/89 built and sold 71 single-family detached homes for $12,780,000. It also built 691 apartment units for its own investment. These had a market value of $46,825,000. Land sales totaled $17,692,496. Rents and management fees brought in $2,770,069. The detached product had an average of 1950 sq. ft. of space and sold for $180,000. The apartments had an average of 830 sq. ft. of space and rented for $652 a month. Firm operates in Calif. (70%), Nev. (15%) and Ore. (15%). Recent projects are in El Dorado Hills and Stockton, Calif., and Reno, Nev. Firm subs out all of its work and has 21 to 50 full-time employees.
185 **$79,960**	261	278 302 units	**Harshbarger Construction Corp.** 5928 Pascal Ct., Ste. 310 Carlsbad, Calif. 92008 David Harshbarger	For fiscal year ended 3/31/89, this privately held company built and sold 14 single-family houses for $21,000,000 and 109 single-family attached units for $29,180,000. The company also built 179 apartments, valued at $16,000,000, for investors. Non-residential construction totaled $13,580,000 and rental income and management fees were $200,000. Building only in Calif., this diversified company built a congregate care facility, luxury condos, single-family homes, shopping centers, restaurants and educational buildings. The company has 21 to 50 employees.
186 **$79,800**	—	208 515 units	**Premier Homes** 4685 MacArthur Ct. 390 Newport Beach, Calif. 92660 Pierre Le Pendeven	For calendar year 1988, this privately held company built and sold 515 single-family homes for a sales volume of $79,010,000. Residential and mortgage brokerage activity accounted for an additional 790,000. Single-family homes averaged 1900 sq. ft. and sold for an average price of $153,420. The firm sold 65% of homes to families with children, 20% to young married couples, 10% to empty nesters and 5% to singles. Active only in Calif., the company plans to build industrial and commercial projects in 1989. Also in 1989, the firm will create two residential divisions: Inland Empire division and Los Angeles division.
187 **$79,710**	266	64 1645 units	**Dominion Developments Inc.** 5911 Orchard St. W Tacoma, Wash. 98467 J. David Page	For calendar year 1988, this privately held company, and subsidiary Empire Communications, built 900 apartments for investors valued at $43,200,000 and 745 apartments for company's own investment at a market value of $35,760,000. Land sales accounted for $750,000. Apartments averaged 850 sq. ft. and rented for an average of $490. Firm builds apartments in Wash. (55%), Nev. (15%), Ore. (20%), and Calif. (10%). The firm has 21 to 50 employees and subcontracted 100% of construction work for 1988.
188 **$77,408**	201	201 547 units	**Kimball Hill Inc.** 5999 New Wilke Rd. Rolling Meadows, Ill. 60008 David K. Hill Jr.	For calendar year 1988, this privately held company built and sold 432 single-family attached units for a sales volume of $50,700,000. Firm also built 79 single-family detached homes for $18,802,000 and 36 apartments for its own investment with a market value of $2,556,000. Rental income and management fees were $3,950,000, land sales accounted for $1,200,000 and non-residential construction added $200,000. Single-family detached homes averaged 2735 sq. ft. and sold for $238,000. The single-family attached units averaged 1450 sq. ft. and sold for an average of $117,400. Building only in Illinois, the company sold 37% of units to families with children, 29% to singles, 16% to young married couples, 10% to empty nesters and 8% to retirees. Company has more than 100 employees.
189 **$77,167**	351	149 778 units	**Landstar Homes** 2533 Boggy Creek Rd. Kissimmee, Fla. 32743 Rodolfo Stern	This privately held firm in 1988 sold 575 houses for $47,985,000, 163 attached homes for $9,563,000 and 40 apartment units for investors for $2,000,000. Land sales totaled $13,359,000, rental income and management fees for $1,500,000 and other income was $2,760,000. Active solely in Fla. Houses have 1450 sq. ft. and sell for $83,000; attached homes have 1200 sq. ft. and sell for $65,000. Sells to singles (10%), families (40%), young marrieds (25%), empty nesters (15%) and retirees (10%). Firm has more than 100 employees. All construction work was subbed out.
190 **$77,000**	189	313 246 units	**Amir Development Co.** 8730 Wilshire Blvd. -200 Beverly Hills, Calif. 90211 Paul Amir	For calendar year 1988, privately held firm built 180 apartments for its own investment for a market value of $45,000,000 and built 66 apartments for investors valued at $9,000,000. Non-residential construction accounted for $12,000,000 and rental income and management fees accumulated $11,000,000. Building only in Calif., the firm's apartments averaged 1100 sq. ft. Non-residential activity consisted of office building construction. Firm has 11 to 20 employees and subcontracts 100% of construction activity.
191 **$75,269**	253	270 315 units	**Calprop Corp.** 5456 McConnell Ave. Los Angeles, Calif. 90066 William Rattazzi	For calendar year 1988, this publicly held corporation and its subsidiaries, CP Land Development, Town Center Properties and Calprop/Doilney & Sass Inc., built and sold 230 single-family detached homes for a sales volume of $51,409,000 and 85 single-family attached units for a sales volume of $21,296,000. Land sales accounted for $1,993,000, rental income and management fees accumulated $20,000 and interest income was $551,000. Net income was 7% of total dollar volume. Single-family detached units averaged 1685 sq. ft. and sold for an average of $170,000. Single-family attached units averaged 2390 sq. ft. and sold for and average of $243,000. Building only in Calif., the company sold 45% to families with children, 20% to both young married couples and empty nesters, 10% to retirees and 5% to singles.
192 **$74,450**	382	289 287 units	**Graham Cos.** 6843 Main St. Miami Lakes, Fla. 33014 W. E. Graham	For fiscal year ended May 31, 1989, this privately held company and subsidiary Miami Lakes Development, built and sold 157 single-family attached units for $12,500,000 and 30 single-family detached houses for $4,500,000. Firm also built 100 apartments for a market value of $5,000,000. Land sales accounted for $12,000,000, rental income and management fees was $17,450,000 and other income accounted for $23,000,000. Single-family detached units averaged 2200 sq. ft. and sold for an average price of $210,000. Single-family attached units averaged 1700 sq. ft. and sold for $130,000. Condos averaged 950 sq. ft. and sold for $83,000. Apartments averaged 750 sq. ft. and rent for $650. Firm builds only in Fla.
193 **$73,724**	219	214 505 units	**Palm Coast Construction** 1 Hargrove Grade Palm Coast, Fla. 32037 Robert DeVore	For calendar year 1988, this publicly held subsidiary of ITT Community Development Corp., built and sold 438 single-family homes and 67 attached units for a sales volume of $57,348,000. Non-res construction totaled $22,376,000. Single-family detached homes averaged 1600 sq. ft. and sold for an average of $72,000 and attached units averaged 1100 sq. ft. for $60,000. Empty nesters bought 75% of units and families with children another 25%. Firm builds only in Fla.

Apartment Giant Zaremba active in Ohio, Pennsylvania and Florida

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
194 **$73,511**	184	**297** 274 units	**McBride & Son Enterprises Inc.** #11 McBride & Son Corporate Cntr Dr. St. Louis, Mo. 63005 Richard R. Gastorf	For calendar year 1988, privately held company and subsidiaries McBride & Son Associates Inc., McBride & Son Contracting Co. and McBride & Son General Construction Co., built and sold 257 single-family detached homes for $42,667,000 and built and sold 17 single-family attached homes for $1,550,000. Firm had 130 remodeling jobs for sales of $895,000. Land sales were $2,430,000, rental income and management fees accounted for $334,000 and subcontracting and general contracting services accumulated $25,635,000. Single-family detached homes averaged 2550 sq. ft. and sold for $166,000. Attached units averaged 1100 sq. ft. and sold for $91,000. Firm builds in Mo. (85%), Va. (10%), and Ill. (5%). In 1988, empolyees purchased company through an ESOP.
195 **$73,000**	—	**295** 277 units	**Signature Homes** 23701 Birtcher Dr. El Toro, Calif. 92630 Norman Stuard	For calendar year 1988, this privately held company built and sold 165 single-family detached units for a sales volume of $37,000,000 and built and sold 112 single-family attached units for $19,000,000. Land sales accounted for an additional $17,000,000. Single-family detached homes averaged 2601 sq. ft. and sold for an average price of $285,839. Attached homes sold for 1301 sq. ft. and cost $167,910. Building only in Calif., the firm sold 35% to young married couples and another 35% to families with children. Singles bought 20% of product and empty nesters 10%. Firm subcontracts 100% of construction and employs 21-50 workers.
196 **$71,269**	175	**287** 289 units	**Kennedy Group** 3800 N. Wilke Rd. #250 Arlington Hts., Ill. 60004 Robert & William Kennedy	In calendar year 1988, this privately held company and subsidiaries Kennedy Homes Ltd. and Kennedy Group Ltd., built and sold 257 single-family detached homes for a sales volume of $55,463,700 and built and sold 32 single-family attached homes for $3,671,200. Non-res construction accounted for $2,000,000 and land sales were $5,754,450. Rental income and management fees were $2,995,000 and the sale of a country club brought $1,385,000. Single-family detached homes averaged 2500 sq. ft. and averaged $215,800. Attached units averaged 1100 sq. ft. and cost $114,700. Company builds in Ill. (60%) and Fla. (40%).
197 **$71,254**	214	**362** 151 units	**Joe Keim Builders Inc.** 618 Frazier Ct. Wheaton, Ill. 60187 Joseph A. Keim	For calendar year 1988, company and subsidiary Joe Keim Land Corp. built and sold 151 single-family detached homes for $42,582,000. Land sales accounted for $28,672,860. Single-family detached homes averaged 3100 sq. ft. and sold for an average price of $282,000. Families with children bought 86% of homes, young married couples bought 8%, retirees 4% and empty nesters 2%. Firm builds only in Ill. and employs 11-20 workers.
198 **$71,000**	205	**103** 1144 units	**Zaremba Development** 14600 Detroit Rd. Lakewood, Ohio 44107 Alan F. Scott	For calendar year 1988, this subsidiary of Zaremba Corp. and subsidiary Zaremba Construction Co., built 1144 apartments for its own investment at a market value or $70,000,000. Rental income and management fees accounted for an additional $1,000,000. Apartments averaged 950 sq. ft. and rent for $650. Company builds in Ohio (40%), Pa. (40%) and Fla. (20%). Firm subcontracts 100% of construction activity and employs 21-50 workers.
199 **$70,829**	127	**105** 1137 units	**LeCesse Corp.** 1412 W. Colonial Dr. Orlando, Fla. 32804 Salvador F. LeCesse	For calendar year 1988, this privately held company and subsidiaries LeCesse Bros. Contracting Inc., LeCesse Development Corp., and LeCesse Corp. of Fla., built and sold 93 single-family homes for a sales volume of $8,010,094. Firm also built 1044 apartments for its own investment for a market volume of $21,695,157. High-rise construction accounted for $20,387,388 with 405 units built. Non-res construction generated $20,736,771. Single-family detached homes averaged 1500 sq. ft. and sold for an average price of $90,000. Apartments averaged 829 sq. ft. with rent at $532. Company builds in Fla. (66%) and N.Y. (34%). Non-residential construction included hotels/motels and educational buildings. Firm employs more than 100 workers.
200 **$70,829**	244	**308** 256 units	**Torino Construction Corp.** 24050 Madison St. Torrance, Calif. 90505 Richard S. Huddleson	For calendar year 1988, this privately held company and subsidiaries Torino Industries and New Ways West-Real Estate Management, built and sold 97 single-family attached units for a sales volume of $13,288,200 and built 32 single-family detached homes for $7,340,587. Firm also built 127 apartments for its own investment at a market value of $4,705,850. One remodeling job brought $35,000 and non-res totaled $29,871,077. Rental income and management fees accumulated $13,011,230 and interest income and other income accounted for $2,577,170. Single-family detached homes averaged 2500 sq. ft. and averaged $270,000. Attached units averaged 1000 sq. ft. and cost $130,000. Firm is active in Nev. (60%), Calif. (31%) and Ariz. (9%).
201 **$70,622**	173	**387** 83 units	**Chatham Properties Inc.** 6075 Roswell Rd. #410 Atlanta, Ga. 30328 J. David Chatham	For fiscal year ended May 31, 1988, this privately held company and subsidiaries Chathambilt Homes Inc., Chatham Communities Inc. and Atlanta Polo Ltd., built and sold 83 single-family detached homes for a sales volume of $16,454,000. Land sales accounted for $11,099,000, rental income and management fees were $4,420,000 and brokerage commissions totaled $38,649,000. Single-family attached homes averaged 2800 sq. ft. and sold for an average price of $198,000. Building only in Ga., the firm sold 50% to families with children, 25% to young married couples, 20% to empty nesters and 5% to singles. Firm employs more than 100 people.
202 **$70,435**	242	**164** 707 units	**Brindley Constr. Co. Inc.** P.O. Box 303 Pulaski, Tenn. 38478 Robert Brindley Sr.	For calendar year 1988, this privately held firm built and sold 78 single-family detached houses for a sales volume of $7,000,000 and built and sold 40 single-family attached units for $4,100,000. In addition, firm built 485 apartments for investors for $16,300,000 and built 104 apartments for its own investment at a market value of $8,225,000. Firm had 89 remodeling jobs for $14,400,000 and non-res accounted for $17,060,000. Land sales accumulated $2,900,000 and rental income and management fees totaled $450,000. Firm is active in Tenn. (40%), Ala. (25%), Fla. (15%), Ky. (10%) and Ohio (10%).
203 **$70,000**	178	**31** 3200 units	**Blazer Building** 1375 Bunker Hill Houston, Texas 77055 Chris Richardson	For calendar year 1988, this privately held firm built 3200 apartments for investors at a sales volume of $70,000,000. Apartments average 780 sq. ft. and rent for $450. Firm is active in Fla. (25%), Ohio (15%), Ga. (10%), S.C. (10%), Va. (10%), Md. (10%), N.C. (5%), Del. (5%), Ind. (5%) and Tenn. (5%). Firm employs 51 to 100 people and subcontracts 81 to 99% of construction activity.
204 **$69,744**	231	**383** 102 units	**Strathmore Organization** 3680 Route 112 Coram, N.Y. 11727 Alfred Barone	This privately held company built 57 single-family detached houses, for revenue of $11,711,000, in calendar year 1988. Construction of 45 attached, for-sale housing units brought in $8,325,000. Non-residential construction produced the bulk of the firm's revenue, with a total of $31,180,000. One large remodeling job produced revenue of $1,525,000. Land sales added $2,562,000, rental income and management fees $3,491,000. Concrete and other contracting operations tallied $10,950,000. Detached houses averaged $205,000 in price, attached units $146,000. Subsidiaries include Strathmore Concrete & Affiliate, Strathmore Commercial Operations, and Albea Ventures. Operations were entirely in N.Y. Based on Long Island, the firm recently expanded operations into upstate New York.

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Davidson Communities of California taps the empty-nester market

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
205 **$68,964**	346	**288** 288 units	**William L. Berry & Co.** 6701 Democracy Blvd Bethesda, Md. 20817 William L. Berry	In calendar 1988, this privately held company built 64 single-family detached houses for revenue of $30,081,195. Sale of 224 attached housing units brought in $38,566,218. Rental income totaled $316,899. Operations were 82% in Va., 18% in Md. Detached houses averaged 3500 sq. ft. and $350,000, attached 2200 sq. ft. and $200,000; apartment condos 1500 sq. ft. and $160,000. Sales were 40% to families, 20% each to young marrieds and empty nesters, and 10% each to singles and retirees. All construction was subcontracted.
206 **$68,835**	171	**138** 857 units	**Harlon-East Properties** 2801 Blue Ridge Rd. Raleigh, N.C. 27607 Harrison M. Lasky	This privately held firm in 1988 built 800 apartment units for investors for $33,700,000. It built 25 houses for $2,875,000 and 32 attached for-sale homes for $3,360,000. Non-res construction was valued at $4,200,000 and land sales amounted to $22,700,000. Other income was $2,000,000. Active in N.C. (90%) and Tenn. (10%). Apartments average 800 sq. ft. and rented for $512 a month. Houses average 1500 sq. ft., sell for $115,000. Attached homes average 1400 sq. ft., sell for $105,000. Firm subbed out all construction work. Has 51 to 100 employees.
207 **$67,950**	264	**38** 2750 units	**Wausau Homes Inc.** P.O.Box 8005 Wausau, Wis. 54402-8005 Marvin C. Schuette	This privately held company, in calendar 1988, manufactured 550 single-family modular housing units for revenue of $14,850,000, and 1500 single-family panelized units for revenue of $40,500,000. Sale of 700 multifamily panelized units brought in the remaining $12,600,000 of total revenues. Operations were 40% in Wis., 34% in Ill., 12% in Minn., and the remaining 6% was split between Iowa and Ind. Single subsidiary is Sterling Building Systems of Wausau, Wis., a panelized manufacturing operation.
208 **$67,933**	88	**182** 618 units	**Rayco Inc. (Ellison Homes)** P.O. Box 5250 San Antonio, Texas 78201 John H. Willome	The privately held parent company to Ray Ellison Homes Inc. (former PB Builder Of The Year) built and sold 618 single-family detached houses in calendar year 1988, for revenue of $40,888,000. Land sales added $19,150,000. Rental income and management fees brought in $2,900,000, and miscellaneous other income totaled $4,995,000. Operations were entirely in San Antonio. Houses averaged 1730 sq. ft., priced at $66,700. At mid-year, the home building operation changed from Ray Ellison Homes Inc. to Rayco Inc. Product emphasis switched from houses full of amenities to larger houses with reduced hard costs and pricing. The price-per-square-foot emphasis was described as more suitable to the tough economic conditions in San Antonio. Sales were 45% to singles, only 32% to families, and 19% to young marrieds without children. Retirees accounted for 4%.
209 **$67,313**	311	**282** 300 units	**Davidson Communities** 12520 High Bluff Dr. San Diego, Calif. 92130 William A. Davidson	In calendar 1988, this privately held company built and sold 122 attached for-sale units for revenue of $41,567,500. Sale of 178 single-family detached houses brought in $25,746,310. Operations were entirely in Calif. Subsidiaries include Davidson Construction Co., a general contractor, and the home building operation The Davidson Company. Sales were 40% to empty nesters, 30% to families, 15% to retirees, 10% to young marrieds, and 5% to singles.
210 **$67,300**	137	**231** 424 units	**Douglas Allred Co.** 1660 N. Hotel Circle Dr. San Diego, Calif. 92108 Douglas O. Allred	This privately held company built 408 apartments for its own investment in calendar 1988, with a market value of $37,760,000. Non-residential construction brought in $25,000,000, and sale of 16 single-family detached houses added $2,640,000. Construction fees totaled $1,200,000, and rental income and management fees totaled $700,000. Operations were 100% in Calif. Rental apartments averaged 818 sq. ft., and rented for $775 a month on average. Non-residential construction was entirely office buildings. All construction work was subcontracted.
211 **$67,299**	221	**199** 552 units	**Cloverleaf Properties Inc.** 8355 Rockville Rd. Indianapolis, Ind. 46234 Roy L. Prock	In calendar 1988, this privately held firm built 549 rental apartments for its own investment, with a market value of $20,038,500. Three attached for-sale housing units were also sold for $335,327 in revenue. Rental income and management fees on apartments produced revenue of $23,173,056. Gross income and management fees from nursing homes brought in $22,541,190. And land sales added $1,211,530. Operations were 70% in Ind., 30% in Ohio. Subsidiaries include Dominion Realty Inc., a property management firm, and Cloverleaf Healthcare Services Inc., a nursing home management company.
212 **$66,983**	—	**42** 2445 units	**Golden West Homes** 1308 Wakeham Santa Ana, Calif. 92705 Harry Karsten Jr.	This privately held company produced 2442 mobile homes in calendar 1988, which were sold for revenue of $66,807,000. Sale of 3 single-family modular units brought in an additional $176,000. Operations were 57.4% in Calif., 19.8% in Ore., 10.5% in Wash., 6.8% in Ariz., 5.2% in Nev., and less than 1% in Utah and N.M. As part of a promotional campaign, this year the firm will give away a complete, 1200-square-foot home to a West Coast charity—in celebration of having built 55,000 homes.
213 **$66,562**	195	**222** 460 units	**Town & Country Homes** 125 W. 55th St. Clarendon Hills, Ill. 60514 William G. Ryan	Privately held company built and sold 231 single-family detached houses in calendar 1988, for revenue of $44,425,396. Sale of 179 attached housing units added $19,242,836. Land sales brought in $2,100,000, while rental income and management fees produced $794,549. Operations were 100% in Ill. The single-family houses averaged 2020 sq. ft., sold for $158,097 on average. Averages for the attached units were 1326 sq. ft. and $107,502. Families accounted for 48% of buyers, young marrieds without kids 30%, empty nesters 16%, singles 5%, and retirees 1%. All construction is subcontracted. On Jan. 1, firm introduced a 2-year warranty program aimed at positioning the firm as a leader in quality construction.
214 **$66,200**	216	**40** 2494 units	**Fuqua Homes Inc.** 7100 S. Cooper Arlington, Texas 76017 William C. Noble	This privately held company, in the fiscal year ended 6/30/88, produced 2494 mobile homes, which were sold for the firm's entire revenue of $66,200,000. Operations were conducted in Ore. (22%), Calif. (20%), Fla. (17%), Ariz. (16%), Mo. (13%), and Texas (12%). Buyers were families (33%), empty nesters (30%), retirees (29%), young marrieds (6%), and singles (2%). Firm employed more than 100 people full time.
215 **$65,984**	265	**224** 456 units	**Interstate General Co., L.P.** 222 Smallwood Village St. Charles, Md. 20602 James J. Wilson	This master-limited partnership, traded on the American and Pacific Stock Exchanges, built 305 attached for-sale housing units in calendar 1988, which sold for $31,146,333 in revenue, along with 47 single-family detached houses, which sold for $5,244,740. Apartments built for the firm's own investment totaled 104 units, with a market value of $7,300,000. Land sales added $12,885,248. Management fees brought in $2,796,787. Equity in the earnings of investment properties produced $5,549,295. And interest and other income chipped in $1,062,449. Net income was reported at 20.97%. Subsidiaries included St. Charles Associates L.P., a St. Charles, Md.-based land developer and home builder, and Interstate General Properties, a San Juan, Puerto Rico-based home builder and real estate management firm. Operations were 68% in Md., 22% in Va., and 10% in Puerto Rico. Attached for-sale units averaged 1400 sq. ft., sold for $103,000 on average. More than 80% of construction was subcontracted.

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Realen Homes changes name from Realty Engineering Homes in 1988

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
216 **$65,000**	150	**44** **2425 units**	**Mueller Group** 19550 Pacific Hwy., S. Seattle, Wash. 98188 Henry J. Mueller	In calendar 1988, this privately held company built 2425 rental apartments, which were sold to investors for $60,000,000. Rental income and management fees brought in an additional $5,000,000. Operations were 63% in Nev., 37% in Wash. Garden style apartments averaged 900 sq. ft., rented for an average of $565 a month, and sold to investors for between $40,000 and $45,000. Projects in 1988 were primarily in Las Vegas and Seattle; 1989 plans called for 2500 units spread among Las Vegas, Seattle, and Portland. All construction was subcontracted.
217 **$64,966**	232	**78** **1386 units**	**Dunmore Homes Inc.** 2150 Professional Dr. Roseville, Calif. 95661 Sidney B. Dunmore	This privately held company, in calendar 1988, built 437 single-family detached houses, which sold for $42,191,000. Sale of 97 attached housing units brought in an additional $5,123,201. The firm also produced 852 precut home packages, which sold for $3,550,189. Non-residential construction accounted for revenue of $9,262,453. Rental income and management fees chipped in $2,450,000. And plumbing subcontracting added $2,389,216. Subsidiaries are Warren Lumber Co. Inc., of Sacramento, which produces precut lumber packages, JA Plumbing Inc., Sacramento, and SBD Inc., Roseville, Calif., a commercial and multifamily contractor. Operations were 100% in Calif. Detached houses averaged 1550 sq. ft., priced at $96,550. Non-residential construction was primarily shopping centers and educational buildings. In 1989, the firm plans to expand into Las Vegas, Nev. and Moreno Valley in Southern Calif.
218 **$64,076**	218	**338** **203 units**	**Signature Properties** 6685 Owens Dr. Pleasanton, Calif. 94566 James C. Ghielmetti	In calendar 1988, this privately held firm built 157 attached for-sale housing units, which were sold for $29,456,000 in revenue. Sale of 46 single-family detached houses built during the year added $8,986,000. Land sales produced revenue of $25,634,000. Operations were 100% in Calif. The attached units averaged 1600 sq. ft. and a sale price of $188,000, while the detached homes were 2100 sq. ft. and $195,000 on average. More than 80% of construction work was subcontracted.
219 **$64,070**	303	**353** **167 units**	**Raznick & Sons Inc.** 5525 Oakdale Ave. Woodland Hills, Calif. 91364 Aaron L. Raznick	This privately held company, in calendar 1988, built and sold 167 single-family detached houses, for revenue of $53,900,000. Non-residential construction brought in $2,300,000, land sales $5,550,000, and rental income and management fees $2,320,000. Subsidiary operations included Raznick Community Builders (same location). All activity was in Calif. The non-res project was an office building. One of the firm's projects was "Shangri-La," in Canyon Country, Calif., a single-family detached community with a condominium homeowners' association.
220 **$63,500**	200	**321** **225 units**	**Blitman Building Corp.** 475 Fifth Ave. New York, N.Y. 10017 Howard N. Blitman	Privately held firm, in calendar 1988, built 150 rental apartments, which were sold to investors for revenue of $30,000,000. Construction of 75 single-family houses produced revenue of $7,500,000. High-rise residential construction brought in $20,000,000. And one remodeling job added $6,000,000. A subsidiary is Hallmark Communities Corp. of Bradenton, Fla., a condo builder. Operations were 60% in N.Y. and 40% in Fla. More than 80% of construction work was subcontracted. Projects included a high-rise luxury condo building in New York City, and 3 townhouse condo developments in Fla.
221 **$63,270**	174	**48** **2143 units**	**United Development Management** 1400 S. Wolf Road Wheeling, Ill. 60090 Virgil Owings & Edward Havlik	In calendar 1988, this privately held company built 535 single-family detached houses, which sold for $6,985,000, and 156 attached units, which sold for revenue of $1,925,000. Rental apartments sold to investors brought in $8,142,500 for 1452 units. And 45 units of high-rise residential added $4,500,000. But the largest single block of revenue—$25,900,000—came from 2 major remodeling jobs. Non-residential construction accounted for $7,654,000 in revenue, and land sales totaled $5,000,000. Rental income and management fees added $3,163,500. Subsidiaries included United Development Homes Inc., Wheeling, Ill., United Southwest, Phoenix, Ariz., United Development Real Estate Corp., Grand Rapids, Mich., and United Consulting Corp. of Texas, Fort Worth. Operations were 39% in Ill., 29% in Ariz., 28% in Mich., and 4% in Texas. Single-family houses averaged 2000 sq. ft., priced at $125,000, while detached units were 1600 sq. ft. and $115,000 on average. Some 80% of sales were to families, most of the rest to young marrieds without kids. Non-res construction was office and industrial. The firm entered the Dallas/Fort Worth market with Trinity Ranch, a 2200-plus acre development of phased-lot sales and mixed-use elements. All construction work was subcontracted.
222 **$62,963**	191	**23** **4653 units**	**Liberty Homes Inc.** 1101 Eisenhower Dr., N Goshen, Ind. 46526 Edward J. Hussey	In calendar 1988, this publicly held corporation produced 4653 mobile homes for revenue of $62,963,000. But the bottom line was a net loss of 1.4%. Net sales in 1988 decreased 21% compared to the previous year. Some of that decrease can be attributed to 2 plant closings in late 1987. In early 1989, the company ceased production in its Kansas plant due to adverse market conditions. But the firm's financial position was relatively strong thanks to holding no debt and cash and investments of $28,227,000.
223 **$62,933**	323	**318** **238 units**	**Realen Homes** 1235 Westlake Dr. Berwyn, Pa. 19312 W. Joseph Duckworth	This privately held firm, formerly Realty Engineering Homes, built 186 single-family detached houses in calendar 1988, which sold for $47,451,656. Sale of 52 attached housing units brought in $5,701,025. Land sales accounted for revenue of $2,987,825, and rental income and management fees added $6,663,000. Other miscellaneous income was listed at $130,376. Limited partnership development subsidiaries were organized for many of the company's projects—including Heatherknoll Associates for 132 single-family homes in Montgomery County, Pa. and Makefield Road Village Associates for 108 single-family houses in Bucks County, Pa. Operations were 82% in Pa., 18% in N.J. Detached houses averaged 2600 sq. ft., sold for $255,000 on average. Attached units averaged 2000 sq. ft. and $110,000. Sales were 40% to families, 30% to young marrieds, 20% to empty nesters, and 10% to singles. Company also established a mortgage banking operation—Realen Mortgage—in 1988.
224 **$62,500 est.**	209	**90** **1250 units est.**	**Centron Cos.** 3025 112th St. NE Bellevue, Wash. 98009 James W. Summers	*Professional Builder* estimates that this privately held company, in calendar year 1988, built 1250 rental apartments. Those were sold to investors for the estimated revenues shown.
225 **$62,418**	314	**230** **425 units**	**Home & Country Inc.** P.O. Box 8367 Riverside, Calif. 92515 Louis Laramore	This privately held company built 425 single-family houses in calendar 1988, which sold for revenue of $55,250,000. Land sales added $6,275,000, and rental income and management fees contributed $893,000. The houses averaged 1800 sq. ft., priced at $130,000. They sold mostly to families (61%) and young marrieds with no children (28%), with the remainder split between singles and retirees. More than 80% of construction work was subcontracted. All activity was in Southern Calif. Subsidiaries included High Country Development Co. and Sunnyslope Ranchos, both residential operations, and Lakeview Development Co., a land developer.

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Stone Gate jumps 106 notches, Taylor Morley Simon builds in Missouri

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
226 **$62,000**	—	109 1121 units	**Primark Corp.** 1200 S. 192nd St. Seattle, Wash. 98148 Hong S. Tan	In calendar 1988, this privately held company built 1121 rental apartments for its own investment, with a market value of $55 million. Rental income and management fees added $7 million in revenue. The apartments averaged 900 sq. ft. and rented for an average of $600 a month. All operations were in Wash. And all construction work was subcontracted.
227 **$61,447**	224	142 811 units	**Lokey Cos.** 1800 Bering Dr. Ste. 220 Houston, Texas 77057 Kenneth R. Lokey	In calendar 1988, this privately held company built 242 single-family detached houses, for sales volume of $21,907,891. The 556 rental apartments built for the company's own investment had a market value of $34,700,000. Construction of 13 attached for-sale housing units added $1,496,446. Land sales produced an additional $856,210. Developer fees and interest income produced $2,335,206. And rental income and management fees contributed $151,361. Subsidiaries include Lokey Construction, Lokey Management Co., and Ken Lokey Homes Inc. The single-family detached houses averaged 1650 sq. ft. and $93,000 in price. The rental apartments averaged 780 sq. ft. and rented for an average of $594 a month. Single-family operations were conducted in N.C. (40%), Tenn. (30%), Ala. (20%), and Texas (10%). Multifamily operations were in Wash. (25%), Ohio (24%), Calif. (19%), Ore. (14%), Fla. (11%) and Tenn. (7%). More than 80% of construction work was subcontracted.
228 **$61,316**	213	206 523 units	**Orleans Construction** 2507 Philmont Ave. Huntingdon Valley, Pa. 19006 Jeffrey P. Orleans	This privately held company, in calendar year 1988, built 450 attached for-sale housing units, which sold for revenue of $45,476,000. The firm also built and sold 73 single-family houses for $14,985,000. Construction management fees and interest income totaled $804,000. And rental income and management fees added $51,000. A subsidiary is Orleans Builders & Developers. The attached single-family units averaged 1500 square sq. ft., priced at $135,000, while the firm's apartment condos averaged 1000 sq. ft. and $86,000. Detached homes were 2200 square sq. ft. and $205,259 on average. Operations were 85% in N.J. and 15% in Pa.
229 **$61,149**	181	238 409 units	**Coventry Financial Inc.** 3875 N. 44th St. Phoenix, Ariz. 85018 Joseph Contadino	This privately held company built 313 single-family detached houses in calendar 1988, which sold for $45,033,000, and 96 attached for-sale units, which sold for $6,818,000. Land sales added $9,298,000. Subsidiary operations included Coventry Homes Inc. and Universal Homes Inc., both in Phoenix, Ariz. Operations were conducted in both Ariz. and Colo. Detached houses averaged 1800 sq. ft. and $113,000 in price.
230 **$60,955**	270	131 980 units	**Nanticoke Homes Inc.** P.O. Box F Greenwood, Del. 19950 John Mervine	This privately held company, in the fiscal year ended 9/30/88, produced 845 single-family modular units, which sold for $53,861,571, and 135 multifamily modular units, which sold for $6,846,954. Non-residential construction produced $246,760. Operations were 47.3% in Md., 43.9% in Del., 4.2% in N.J., 2.6% in Va., and 2% in Pa. The non-residential project was an office building.
231 **$60,585**	301	304 265 units	**Braddock & Logan Associates** 14795 Washington Ave. San Leandro, Calif. 94578 Joseph E. Raphel	This publicly held corporation produced 265 single-family homes in calendar 1988, which sold for $46,755,000. Non-residential construction added $4,300,000. Land sales brought in $3,200,000. And rental income and management fees totaled $6,330,000. A subsidiary operation is Peters Group, which builds in northern Calif. All operations were in Calif. The detached houses averaged 1800 sq. ft., sold for $176,000 on average. The non-residential construction was warehouses. None of the firm's construction work was subcontracted.
232 **$60,570 est.**	129	168 673 units est.	**Estes Construction Co.** P.O. Box 17360 Tucson, Ariz. 85731-7360 William Estes Jr.	*Professional Builder* estimates this privately held company, in calendar year 1988, built 673 single-family detached houses, which sold for an estimated $60,570,000 in revenue. Operations were conducted in both Phoenix and Tucson, Ariz.
233 **$60,565**	339	319 237 units	**Stone Gate Development Corp.** 62 Fox Ridge Rd. Stamford, Conn. 06903 Norman A. Fieber	In calendar 1988, this privately held company built 96 single-family detached houses, which sold for revenue of $42,050,000, and 141 units of attached for-sale housing, which brought in $16,765,000. Three remodeling jobs brought in an additional $250,000. And land sales added $1,500,000. Subsidiaries included Mallards Landing and Spring Hill Development, each of which built condos in Norwalk, Conn., and Cedar Heights Development, which built detached houses in Stamford, Conn. The detached houses averaged 3000 sq. ft. and sold for an average of $425,000. The attached product averaged 1100 sq. ft. and a price of $195,000.
234 **$60,180**	239	179 623 units	**Taylor Morley Simon Inc.** 1227 Fernridge Parkway, St. Louis, Mo. 63141-4451 Harry T. Morley	This privately held company, in the fiscal year ended 10/31/88, built 286 single-family detached houses, which were sold for revenue of $40,162,941, and 241 attached for-sale housing units, which sold for $13,065,979. The firm also built 96 apartments for its own investment, with a market value of $6,344,000. Rental income and management fees added $607,668. Operations were 100% in Missouri. Single-family detached houses averaged 2000 sq. ft., priced at $140,429. Attached units were 1000 square sq. ft. and $54,216 on average.
235 **$60,000**	207	200 550 units	**Hylton Enterprises (VA)** 13901 Jefferson Davis Woodbridge, VA 22191 Cecil D. Hylton	In the fiscal year ended 11/30/88, this privately held company built 257 single-family detached houses, which were sold for revenue of $30,700,000, and 188 attached for-sale units, which sold for $17,100,000. The firm also built 105 rental apartments for its own investment, with a market value of $6,300,000. Rental income and management fees added $5,900,000. Operations were all in Va. The single-family houses averaged 2000 sq. ft., priced at $119,000. Attached units averaged 1500 square sq. ft. and sold for an average of $91,000. The rental apartments averaged 850 sq. ft. and brought in an average monthly rent of $600.
236 **$59,956**	250	33 3122 units	**Homes of Merit Inc.** P.O. Box 1606 Bartow, Fla. 33830 Charles E. Weeder	This privately held company in calendar year 1988 manufactured 3122 mobile homes with a market value $59,956,819. Firm is active solely in Fla. It employs more than 100 people full time.
237 **$59,945**	281	47 2147 units	**Coachmen Housing** P.O. Box 3300 Elkhart, Ind. 46515 Robert A. Gottschalk	Publicly held corporation in calendar year 1988 manufactured 466 mobile homes with a market value of $8,641,261. It also manufactured 1639 single-family modular units with a market value of $50,192,487 and 42 multifamily modular units with a market value of $1,111,441. Subsidiary operations include All-American Homes, Decatur, Ind. and Galaxy Homes Inc., Dyersville, Iowa.

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
238 **$59,325**	247	54 1890 units	**Wick Building Systems** 403 Walter Rd. Mazomanie, Wis. 53560 John Wick	Privately held company in calendar year 1988 manufactured 1707 mobile homes with a market value of $32,852,000. It also manufactured 183 single-family panelized units with a market value of $10,172,000. Non-res construction of warehouses, farm buildings and recreational buildings had a market value of $16,301,000. Firm employs more than 100 people full time. Subsidiary operations include Wick Buildings, Mazomanie, Wis., Marshfield Homes, Marshfield, Wis. and Wick Homes, Mazomanie, Wis.
239 **$58,988**	—	381 103 units	**Braemar Homes** 30495 Canwood St. Agoura Hills, Calif. 91301 Sidney H. Dinow	This privately held company in calendar year 1988 built and sold 37 single-family detached units with a market value of $13,214,000. It also built and sold 66 single-family attached units with a market value of $15,677,000. Land sales income totaled $28,819,000. Rental income and management fees were $1,278,000. Detached product averages 2880 sq. ft. of space for $357,135. Attached product averages 1995 sq. ft. of space for $237,530. Firm is active solely in Calif. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees.
240 **$58,800**	229	186 600 units	**Century Homes** POB 8110 San Bernardino, Calif. 92412 John Pavelak	Privately held company in calendar year 1988 built and sold 600 single-family detached units with a market value of $58,800,000. Detached product averages 1500 sq. ft. of space for $98,000. Sales were to families (40%), childless couples (30%), singles (10%), retirees (10%) and empty nesters (10%). Firm is active solely in Calif. It subbed out all of its work. Company employs more than 100 people full time.
241 **$58,078**	271	307 259 units	**Sun Lakes Construction** 25632 S. Howard Dr. Sun Lakes, Ariz. 85248 E. J. Robson	This privately held company in calendar year 1988 built and sold 259 single-family detached units with a market value of $24,128,777. Non-res construction of recreational buildings accounted for $2,500,000. Land sales income was $18,875,000. Rental income and management fees were $7,850,000. Miscellaneous income totaled $4,725,000. Detached product averages 1888 sq. ft. of space for $93,161. Sales were to retirees (65%) and empty nesters (35%). Firm builds solely in Ariz. It subbed out 81 to 99% of its work. Company has more than 100 full-time employees.
242 **$58,000 est.**	153	323 225 units est.	**R.B. McComic Inc.** 4920 Carroll Canyon Rd. San Diego, Calif. 92121 R. B. McComic, Gary Copson	*Professional Builder* estimates that this privately held firm in 1988 built and sold 225 single-family detached houses for estimated revenues shown.
243 **$57,605**	260	163 710 units	**S & A Custom Built Homes Inc.** RD #4 Bellefonte, Pa. 16823 Don Haubert, Robert Poole	This privately held company in calendar year 1988 built and sold 675 single-family detached units with a market value of $51,450,000. It also built and sold 35 single-family attached units with a market value of $1,630,000. Remodeling and renovation jobs accounted for $500,000. Land sales income was $950,000. Miscellaneous income totaled $3,075,000. Detached product averages 1510 sq. ft. of space for $76,200. Attached product averages 1225 sq. ft. of space for $54,000. Firm is active in Pa. (92%), Md. (6%) and W. Va. (2%). It subbed out 81 to 99% of its work. Firm has more than 100 full-time employees.
244 **$57,580**	280	270 315 units	**Zaring National Corp.** 11300 Cornell Park Dr. Cincinnati, Ohio 45242 Allen G. Zaring	For calendar year 1988, this privately held company built and sold 277 single-family detached homes for a sales volume of $58,840,024. Company also built 38 single-family attached units for sales of $4,642,033. Land sales accounted for an additional $98,000. The single-family detached homes averaged 2800 sq. ft. and sold for an average price of $190,000, while the attached units averaged 1700 sq. ft. and sold for $122,000. Company builds in Ohio (65%), Tenn. (18%), Ky. (9%) and Fla. (8%). Company has more than 100 employees and subcontracts 81 to 99% of its construction activity.
245 **$57,563**	285	219 482 units	**Lockwood Group** 17 W. Lockwood Ave. St. Louis, Mo. 63119 Joseph A. Shepard	For calendar year 1988, this privately held company built 482 apartments for investors at a sales value of $21,913,270. Company also recorded $1,114,558 worth of non-res construction and $33,463,670 for rental income and management fees. Land sales accounted for $820,000 and interest income was $249,725. The apartments averaged 700 sq. ft. and rent for about $400. Company rents to retirees (38%), young married couples (31%) and families with children (31%). The company builds in Mo. (44%), Ark. (33%), Ky. (11%) and Kan. (11%). More than 100 people work for the company, whose non-res revenue comes from building car-care malls.
246 **$57,528**	225	246 395 units	**Borror Corp.** 5501 Frantz Rd., P.O. Box 7166 Dublin, Ohio 43067-0766 Douglas G. Borror	Privately held company in calendar year 1988 built and sold 366 single-family detached units with a market value of $34,130,000. It also built and sold 29 single-family attached units with a market value of $2,897,000. Non-res construction of shopping centers accounted for $975,000. Land sales income was $2,169,000. Rental income and management fees totaled $5,353,000. Miscellaneous income accounted for $12,004,000. Detached product averages 1750 sq. ft. of space for $95,000. Attached product averages 2500 sq. ft. of space for $120,000. Sales were to childless couples (30%), families (30%), singles (15%), empty nesters (9%) and retirees (6%). Firm is active in Ohio and N.C. It subbed out 81 to 99% of its work. Company employs more than 100 people full time.
247 **$57,000**	246	218 489 units	**Di Loreto Construction** P.O.Box 70280 Reno, Nev. 89570 Perry M. Di Loreto	For calendar year 1988, this privately held company built and sold 371 single-family detached homes for a sales volume of $41,000,000. Company also built 118 attached units for sales of $11,000,000. Non-residential construction totaled $4,100,000 and rental income and management fees added another $1,900,000. The single-family detached homes averaged 1700 sq. ft. and sold for $105,000. The attached units averaged 1100 sq. ft. and sold for $83,000. Families with children bought 40% of the units, with young married couples buying 30% and singles, empty nesters and retirees splitting the remaining 30%. Company builds in Nev. (75%) and Calif. (25%).
247 **$57,000**	—	56 1800 units	**Ritz-Craft Corp. of Pa.** P.O. Box 70 Mifflinburg, Pa. 17844 Paul R. John	For calendar year 1988, this privately held company and subsidiaries Ritz-Craft Homes, Medallion Homes and Platinum Homes, manufactured and sold 1600 single-family modular units for sales of $50,000,000. Company also manufactured 200 multifamily modular units for sales of $7,000,000. The single-family detached modular units averaged 1300 sq. ft. Company sells in N.Y. (40%), Pa. (30%), New England (17%), N.J. (5%), Va. (3%), Md. (3%) and Del. (3%).

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Patriot Homes ranks 37th in unit production with 2753 mobile homes

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
249 **$56,470**	—	**350** 175 units	**Trilex Properties** 3264 Villa Lane Napa. Calif 94550 A.R. Ceresa	For calendar year 1988. this privately held company built and sold 149 single-family attached homes for a sales volume of $27.195.462 and built and sold 26 single-family detached homes for sales of $7.540.000 Other income, which includes revenue from a custom lot community. totaled $21.735.000 The single-family detached homes averaged 2450 sq ft and sold for an average price of $290.000 The attached units averaged 1700 sq ft and sold for about $180.000 Building only in Calif., company had 8 MAME award nominations in 1988
250 **$56,294**	327	**275** 308 units	**Sun City Center Corp.** P.O Box 5698 Sun City Center, Fla 33570 Alfred Hoffman, Jr	For calendar year 1988. this privately held company and subsidiary Walden Lake Inc built and sold 200 single-family attached homes for a sales volume of $15.453.341 Company also built 108 single-family detached homes for sales of $12.406.073 Hotel, restaurant and club fees generated $13.473.018 in income, while land sales added $7.839.346 Rental income and management fees brought $7.123.127 The single-family detached homes averaged 1700 sq. ft. and sold for an average price of $114.871 and the attached units averaged 1325 sq ft., selling for an average price of $77.267 The company builds only in Fla and sells to retirees Company merged with a land development firm in 1988 to focus on retirement sales
251 **$55,570**	275	**224** 456 units	**M.J. Peterson Real Estate** 501 John James Audubon Pkwy. Amherst, N.Y 14228 V. Peterson Jr., Dennis Penman	In 1988 this privately held firm sold 130 houses for $18.5 million and 10 attached homes for $3.6 million In addition, it built 316 apartments for own investment with market value of $10 million. Rental income and management fees were $18.27 million, land sales were $2.4 million Other income from brokerage and development fees was $2.8 million Active solely in N.Y Houses average 2400 sq ft and sell for $150.000, attached homes average 2300 sq ft and $350.000. Apartments have 800 sq ft., rent for $450 a month Subbed out 81 to 99% of construction work Has more than 100 employees
252 **$55,500**	269	**220** 470 units	**Century American Corp.** 1428 E. Chapman Ave. Orange, Calif. 92666 Roger C. Hobbs	For calendar year 1988. this privately held company built and sold 210 single-family attached homes for $27.000.000 and 138 single-family detached homes for sales of $16.000.000. Company also built 122 apartments for its own investment at a market value of $9.000.000. Non-res construction brought $2.000.000 and rental income and management fees an additional $1.500.000 Single-family detached homes averaged 1700 sq ft and the attached units averaged 1300 sq ft Builds only in Calif
253 **$55,499**	288	**37** 2753 units	**Patriot Homes Inc.** 57420 County Rd. 3 Elkhart, Ind. 46517 Sam Weidner	For calendar year 1988. this privately held company manufactured and sold 2753 mobile homes for sales of $55.499.199 The company has more than 100 employees
254 **$55,396**	286	**253** 364 units	**Brehm Communities** 2835 Camino Del Rio S San Diego, Calif 92108 Forrest W. Brehm	For fiscal year ended June 30. 1988. this privately held company built and sold 207 single-family attached homes for a sales volume of $27.869.000 and built and sold 157 single-family detached units for sales of $27.083.000 Loan processing and other income accumulated an additional $444.000. The single-family detached homes averaged 1475 sq ft and sold for an average price of $180.000 and the attached units averaged 1149 sq ft with a price tag of $115.000 Builds only in Calif
255 **$55,327**	283	**61** 1713 units	**Silvercrest Manufactured Housing** 299 N. Smith St Corona, Calif 91720 G. F. Edmundson	For fiscal year ended June 30. 1988 this subsidiary of publicly-held Silvercrest Corp. manufacturered 1713 mobile homes for sales of $50.597.000 Park and construction management brought an additional $4.730.000 The company sells mobile homes in Calif (60%). Wash (20%) and Ore (20%) More than 100 people work for the company
256 **$55,200**	353	**242** 400 units	**Ira L. Brummell Dev. Co.** P.O. Box 917 Fullerton, Calif 92632 Ira L. Brummell	For calendar year 1988. this privately held company and subsidiary Quality Investments Inc built 400 apartments for its own investment at a market value of $27.600.000 Rental income and management fees totaled an additional $23.610.000 and land sales added another $3.990.000 The apartments averaged 750 sq ft and rent for an average of $500 The company builds only in Calif., and has 21 to 50 employees
257 **$55,091**	329	**270** 315 units	**Sunland Consolidated** 5095 Murphy Canyon Rd #280 San Diego, Calif 92123 Thomas P. Dobron	For calendar year 1988. this privately held company and subsidiaries Sunland Housing Inland Empire. Sunland Housing Northern Calif and Sunland Housing San Diego, all in Calif., built and sold 196 single-family detached homes for a sales volume of $34.336.188 In addition, the company built 119 single-family attached units for sales of $17.255.000 Non-res construction had a market value of $3.500.000 Single-family detached homes averaged 2400 sq ft and sold for an average of $175.000 Attached units averaged 1500 sq ft and sold for $145.000 Company builds in Calif (97%) and Nev (3%)
258 **$54,801**	263	**289** 287 units	**Pembroke Enterprises** 281 Independence Blvd 5621 Virginia Beach, Va 23462 Frederick J. Napolitano	For calendar year 1988. this privately held company and subsidiaries Napolitano Enterprises Inc., Terry/Peterson Dev Corp., Pembroke Partnerships Ltd and Pembroke Insurance built and sold 186 single-family attached homes for a sales volume of $13.134.189 Company also built and sold 101 single-family attached units for sales of $11.555.818 and built 2 apartments for its own investment at a market value of $170.000 Rental income and management fees accounted for $24.549.233, land sales totaled $3.289.942 and insurance income brought $2.102.750
259 **$54,535**	—	**217** 494 units	**Bozzuto & Associates** 6401 Golden Triangle Dr Greenbelt, Md 20770 Thomas S. Bozzuto	For calendar year 1988. this privately held company built 316 apartments for investors at a sales value of $32.646.000 and built 178 apartments for its own investment at a market value of $17.717.000 Non-res construction had a market value of $4.172.000 The apartments averaged 900 sq ft and rent for $785 Company is active in Md (56%) and Va (44%) Bozzuto & Assoc. is a new company comprised of senior officers from Oxford Development Corporation's Mid-Atlantic region Company started business activities on April 4, 1988
260 **$53,961**		**69** 1542 units	**VRI Builders** 200 W Calhoun Temple, Texas 76503 Victor R. Means, Jr	For calendar year 1988. this privately held company built 1542 apartments for investors at a sales value of $53.061.598 The company completed one remodeling job for $900.000 The apartments averaged 750 sq ft and rent for about $500 Company is active in Va (32%), Ga (31%), Md (15%), N.C (11%), Fla (6%) and Texas (5%) The company opened two regional offices during 1988 in Atlanta and Herndon, Va., for more responsive service

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American West Development calls itself No. 1 home builder in Las Vegas

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
261 $53,857	321	210 509 units	**Ridgeway Development** 2401 Lake Park Dr. Atlanta, Ga. 30080 John A. Strama	For calendar year 1988, this privately held company built and sold 357 single-family detached houses for sales of $34,479,335 and built 152 single-family attached units for sales of $12,784,595. The company's non-res construction had a market value of $4,459,000 and land sales of $960,000. Also, rental income and management fees generated $497,954 and investment income brought $676,717. The single-family detached homes averaged 1400 sq. ft. and sold for an average price of $127,000. Condominiums averaged 1250 sq. ft. and sold for an average price of $81,000. The company is active in N.J. (60%) and Ga. (40%).
262 $53,689	256	352 174 units	**Prairie Development Ltd.** 20821 S. Cicero Ave. Matteson, Ill. 60443 Ronald A. Reichert	For calendar year 1988, this subsidiary of Pathway Financial Corp., Matteson, Ill., built and sold 133 single-family attached units for sales of $30,417,497 and built 41 single-family detached homes for sales of $13,503,597. Non-residential construction accounted for a market value of $2,314,303 and land sales generated $7,358,625. Rental income and management fees accounted for $95,192. The single-family detached homes averaged 3200 sq. ft. and sold for an average price of $329,356 and the attached units averaged 2000 sq. ft. for a price of $228,702. Company is active in Ill. (98%) and N.C. (2%).
263 $53,680	—	280 301 units	**Acacia Construction Inc.** 1021 W. Bastanchury Rd. Fullerton, Calif. 92633 Richard G. Snyder	For calendar year 1988, this privately held company built and sold 301 single-family detached homes for sales of $42,768,000. Land sales accounted for $7,220,000 and rental income and management fees generated $796,000. Other income, principally interest income, accounted for $2,896,000. The 1900-foot single-family house sold for an average price of $142,086. Building only in Calif. The company principally builds in the Inland Empire of Calif. for entry-level and move-up buyers.
264 $53,635	318	240 403 units	**American West Development** 2700 E. Sunset Rd. Las Vegas, Nev. 89120 Lawrence D. Canarelli	For calendar year 1988, this privately held company built and sold 403 single-family detached homes for sales of $42,150,000. Land sales accounted for an additional $11,485,000. The single-family homes averaged 1870 sq. ft. and sold for an average price of $100,000. Building only in Nev., the company sells 35% of homes to families with children, 25% to young married couples, 15% to both retirees and singles and 10% to empty nesters. Company currently owns land for 5000 homes and markets itself as Las Vegas' No. 1 home builder.
265 $52,575	325	263 330 units	**Segal Associates Inc.** 560 Benigno Blvd. Bellmawr, N.J. 08031 Donald H. G. Segal	For calendar year 1988, this privately held company and subsidiary East Enterprises, built and sold 235 single-family attached homes for sales of $31,450,000 and built 95 single-family detached homes for sales of $13,300,000. The company completed 2 remodeling jobs for sales of $250,000. Rental income and management fees accumulated $6,250,000 and subsidiary construction activity brought an additional $1,325,000. Building only in N.J., the company said it plans on purchasing a major competitor in the marketplace, which the company expects will double production for 1989.
266 $52,126	326	228 432 units	**Inco Homes** P.O. Box 970 Upland, Calif. 91785-0970 Ira Norris	For calendar year 1988, this privately held company and subsidiaries Inco Development and G&N built and sold 432 single-family attached units for sales of $49,554,000. Rental income and management fees accounted for $2,091,000, and interest and miscellanous income accounted for $381,000.
267 $51,925	287	115 1050 units	**Epoch Properties Inc.** 359 Carolina Ave. Winter Park, Fla. 32789 James H. Pugh Jr.	For calendar year 1988, this privately held company and subsidiaries Epoch Management Inc. and Epoch Capital Corp. built 1050 apartments for investors at a market value of $51,500,000. Land sales accounted for an additional $425,000. Apartments averaged 975 sq. ft. and rent for about $575. The company is only active in Fla. It employs 11 to 20 people and subcontracts 81 to 99% of its construction activity.
268 $51,514	—	203 534 units	**JL Construction Co.** P.O. Box 369 Carlsbad, Calif. 92008 James L. Franklin	For calendar year 1988, this privately held company built and sold 108 single-family detached units for sales of $14,058,000 and built and sold 26 attached units for $2,502,000. Company also constructed 400 apartments for investors at a value of $26,750,000. Land sales accounted for another $8,204,000. The 1400 sq. ft. single-family detached home sold for an average price of $130,000 and the 1100 sq. ft. attached units sold for an average $96,000.
269 $51,374	—	348 181 units	**Foster Brothers Inc.** 3975 University Dr. 200 Fairfax, Va. 22030 Arthur E. Foster	For calendar year 1988, this privately held company built and sold 131 single-family detached homes for a sales volume of $28,129,000 and built 50 single-family attached units for sales of $6,102,000. Non-res construction totaled $13,800,000 and rental income and management fees came to $3,343,000. The single-family detached homes averaged 2200 sq. ft. and sold for an average price of $214,725. The attached units averaged 1400 sq. ft. and sold for about $122,000. The company builds only in Va. It has more than 100 employees.
270 $51,233	307	274 313 units	**Red Seal Development Corp.** 425 Huehl Rd. Northbrook, Ill. 60062 David Hoffman	For calendar year 1988, this privately held company and subsidiaries Red Seal Management Corp. and Red Seal Construction Corp. built and sold 109 single-family attached units for a sales volume of $24,525,000. The company also built 204 apartments for its own investment at a market value of $14,300,000. Six remodeling jobs brought $1,810,000 and non-res construction totaled $8,500,000. Land sales accounted for $1,200,000, rental income and management fees totaled $622,420 and interest and sale of assets brought $276,000. The single-family attached units averaged 2300 sq. ft. and sell for about $225,000 and the apartments average 900 sq. ft. with rent about $675. The company builds only in Ill. and has 51 to 100 employees.
271 $50,978	397	301 269 units	**Kettler Forlines Inc.** 19110 Montgomery Village Ave. Gaithersburg, Md. 20760 Clifford E. Forlines	For calendar year 1988, this privately held company built and sold 125 single-family detached homes for sales of $27,881,028 and built and sold 144 single-family attached units for sales of $20,478,075. Land sales totaled $2,500,000 and rental income and management fees came to $119,423. The single-family detached homes averaged 2200 square feet and sold for $223,048. The attached units averaged 1400 square feet and sold for about $142,209. The company builds in Md. (45%), Va. (30%) and Pa. (25%).
272 $50,913	274	180 622 units	**Engineered Concepts** 2700 Delk Rd., Ste. 100 Marietta, Ga. 30067 Richard C. Lackey	For calendar year 1988, this privately held company and subsidiaries ECI Properties Inc., ECI Realty Inc. and ECI Management Corp., built 370 apartments for investors at a value of $16,650,000 and built 252 apartments for its own investment at a market value of $10,080,000. The company completed 1 remodeling job for $120,796 and non-res construction totaled $14,021,000. Rental income and management fees totaled $10,041,400. The apartments averaged 962 sq. ft. and rented for $500. Building only in Ga., the company has more than 100 employess and subcontracts 81 to 99% of construction activity.

THE 400

Hillside Residential, a new Giant from California, places 277th this year

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
273 $50,866	—	261 339 units	**John B. Canuso Inc** P.O. Box 688 Voorhees, N.J. 08043 John B. Canuso	For calendar year 1988, this privately held company built and sold 155 single-family detached homes for sales of $33,157,000 and 184 single-family attached units for $17,709,000. The detached homes averaged 2736 sq. ft. and sold for $213,916. The attached units averaged 1291 sq. ft. and sold for an average of $96,245. Currently the company is only active in N.J., but it is acquiring land in Pa. for a new division in 1989.
274 $50,370	384	283 297 units	**Woodview Development Co. Inc.** 200 E. Sandpointe Ave. Santa Ana, Calif. 92707 Thomas C. Siffermann	For calendar year 1988, this privately held company built and sold 239 single-family attached homes for $37,060,000 and built 58 apartments for investors valued at $2,130,000. Non-res construction had a market value of $1,200,000 and land sales accounted for $9,960,000. Rental income and management fees brought another $380,000. The detached homes averaged 1750 sq. ft. and sold for about $155,063. Company builds only in Calif. and has 21 to 50 employees and subcontracts 100% of construction activity.
275 $50,184	284	299 270 units	**Zellner Communities Inc.** 2910 Red Hill Ave. Costa Mesa, Calif. 92626-5924 Donald G. Zellner	For calendar year 1988, this privately held company built and sold 220 single-family detached homes for sales of $35,784,000 and 50 single-family attached units for $3,600,000. Land sales accounted for $8,600,000 and rental income and management fees totaled $2,200,000. The detached units averaged 1750 sq. ft. and sold for about $162,650. The condominiums averaged 600 sq. ft. and sold for about $72,000. The company builds only in planned communities in Calif., and subcontracts 100% of construction activity. The company has 21 to 50 employees.
276 $50,000	293	35 3019 units	**Guerdon Industries Inc.** 10200 Sepulveda Blvd. Los Angeles, Calif. 91345 Fred Huckvale	For calendar year 1988, this privately held company manufactured and sold 2622 mobile homes for a sales volume of $49,000,000 and 397 single-family modular units for $1,000,000. The company sells 25% in Miss. and 15% each in Ore., Idaho, Neb., Ala. and Ga. More than 100 people work for the company, which subcontracts 1 to 20% of its construction activity.
277 $49,400	248	94 1200 units	**Sexton Cos.** 9001 N. Meridian St. Indianapolis, Ind. 46260 Joseph F. Sexton	For calendar year 1988, this privately held company built 1200 apartments for its own investment at a market value of $42,000,000. The company did one remodeling job for $6,200,000 and land sales accounted for an additional $1,200,000. The apartments averaged 784 sq. ft. and rent for $475. Building mostly in Ohio (90%) and some in Ind. (10%), the company employs more than 100 people. New developments include Blair Court in Columbus, Ohio, and another Blair Court in Indianapolis.
277 $49,400	—	254 360 units	**Hillside Residential Inc.** 209 W. Ave. J Lancaster, Calif. 93534 Alain B. Rogier	For fiscal year ended 8/31/88, this privately held company built and sold 360 single-family detached units for a sales volume of $48,000,000. Non-res construction totaled $400,000 for the year and land sales accounted for another $1,000,000. Building only in Calif., the single-family homes averaged 1637 sq. ft. and sold for an average price of $126,000. The company employs 21 to 50 people and subcontracts 100% of construction activity.
279 $49,133	282	302 267 units	**Ciotti Companies** P.O. Box 2271 Sinking Spring, Pa. 19608 Sebastian R. Ciotti	For calendar year 1988, this privately held company built and sold 181 single-family detached units for a sales volume of $21,927,600. Company also built and sold 86 single-family detached units for sales of $9,416,900. Non-residential construction accounted for $13,217,736. Other income included $570,000 for land sales, $3,645,000 for rental income and management fees and $356,000 for hi-tech machining. Single-family detached units averaged 1800 sq. ft. and sold for an average price of $121,150. Attached units averaged 1600 sq. ft. and sold for $109,500. Families with children bought 59% of units, young married couples 15%, empty-nesters 10%, singles 9% and retirees 7%. Company is active in Pa. (57%), Del. (39%) and N.J. (4%).
280 $49,000	349	143 810 units	**Lindal Cedar Homes Inc.** 4300 S. 104th PL. Seattle, Wash. 98178 Robert W. Lindal	For calendar year 1988, this publicly held corporation manufactured and sold 810 precut home packages for a sales volume of $40,000,000. Wood windows and sunroom sales totaled an additional $9,000,000. The single-family detached precut homes average 2200 sq. ft. Families with children purchase 35% of homes, followed by empty-nesters 25%, retirees 20%, young married couples 10% and singles 10%. Firm is active in Ontario, Canada, N.Y., Calif., Ill., Pa., Wash., N.C. and Mass. Company has more than 100 employees.
281 $48,997	344	235 412 units	**Roy E. Daly & Co.** 9055 Haven Ave. Rancho Cucamonga, Calif. 91738 Roy E. Daly Jr.	For calendar year 1988, this privately held company and subsidiaries Daly Homes of Calif., Daly Homes of Colo., and Daly Homes of Nev., built and sold 165 single-family detached homes for a sales volume of $22,153,000. Company also built 247 apartments for its own investment at a market value of $20,800,000. Rental income and management fees raised an additional $6,044,000. Single-family detached houses averaged 1900 sq. ft. and sold for an average price of $135,000. Apartments averaged 960 sq. ft. and rent for $676. Families with children bought 80% of the units, young married couples bought 15% and singles the remaining 5%.
282 $48,333	343	258 343 units	**Coleman Co.** P.O. Box 9336 Bakersfield, Calif. 93389 Thomas Coleman	For calendar year 1988, this privately held company and subsidiary CPC Financial Corp., built and sold 356 single-family detached homes for a sales volume of $42,033,000. Rental income and management fees brought an additional $6,300,000. The single-family detached homes average 1800 sq. ft. and sold for an average price of $118,000. Families with children bought 65% of units, with empty nesters buying 15%, young married couples 10%, and singles and retirees buying 5% each. In 1989, company changed name from Coleman Construction Inc. and CPC Financial Corp. to Coleman Homes Inc.
283 $47,584	357	226 447 units	**Iacobucci Organization** 2 EF Raymond Dr. Havertown, Pa. 19083 Frank & Anthony Iacobucci	For calendar year 1988, this privately held company and subsidiaries Glenhill Builders, Heritage Real Estate Investment, AEA Development and Norriton Estates, built and sold 442 single-family attached homes for a sales volume of $39,729,102. In addition, the company built 5 single-family detached homes for sales of $750,000. Non-residential construction accounted for $4,000,000 and rental income and management fees were $3,105,000. Single-family detached homes averaged 1900 sq. ft. and sold for an average price of $179,000. Attached units averaged 1200 sq. ft. with an average sales price of $100,000. Active in Pa. (84%) and N.J. (16%). Company employs more than 100 people.
284 $47,227	309	294 279 units	**Christopher Cos.** 8290 Old Courthouse Rd. Vienna, Va. 22180 Frederick A. Kober	Privately held builder in 1988 sold 115 houses for $23,675,000 and 164 attached homes for $17,520,000. Finished lot sales were $5,652,000 and rental income/management fees were $380,000. Active solely in Va. Houses have 2800 sq. ft., sell for $235,000. Attached homes average 2100 sq. ft., sell for $185,000. Subbed out all construction work. Has 51 to 100 employees.

ANNUAL REPORT OF HOUSING'S GIANTS »

Contempri Homes—with 1238 units—is a major modular-homes producer

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
285 **$46,654**	361	158 738 units	**Hughes-Patwil Homes** P.O. Box 6181 Linglestown, Pa. 17112 Eugene Bastian	For calendar year 1988, this privately held company built and sold 738 single-family detached homes for a sales volume of $46,654,890. The homes averaged 1500 sq. ft. and sold for an average price of $60,000. Families with children bought 60% of homes, with young married couples buying 15%, singles 10%, empty nesters 10% and retirees 5%. Company is active in Pa. (90%), Md. (5%), W.V. (3%) and Ohio (2%). Company acquired Foxchase Homes during the calendar year. More than 100 people are employed by the company.
286 **$46,605**	340	347 187 units	**Ryder Properties** P.O. Box 4008 Walnut Creek, Calif. 94596 Ned K. Ryder	For fiscal year ended 11/30/88, this privately held company built and sold 187 single-family detached homes for a sales volume of $28,275,000. Land sales accounted for $11,181,000 and rental income and management fees another $7,149,000. Single-family detached homes averaged 2000 sq. ft. and sold for an average price of $145,000. Building only in Calif., the company sold 50% of units to families with children, 20% to young married couples, 15% to empty nesters, 10% to singles and 5% to retirees. Company employs 21 to 50 people.
287 **$46,440**	267	353 167 units	**Duffel Financial & Constr. Co.** 3730 Mount Diablo Blvd. Lafayette, Calif. 94549 Joseph A. Duffel	For calendar year 1988, this privately held company built and sold 111 single-family attached homes for a sales volume of $13,578,000. In addition, the company built 56 single-family detached homes for sales of $10,411,000. Hotel revenues totaled $14,843,000, rental income and management fees accumulated $6,728,000 and land sales totaled $880,000. The single-family detached homes averaged 2000 sq. ft. and sold for an average price of $185,918 and the attached units averaged 1500 sq. ft. and sold for $122,324. Building only Calif., the company also is active in office building construction. More than 100 employees work for the company.
288 **$45,950**	198	194 563 units	**Milburn Investments** P.O. Box 9802-682 Austin, Texas 78766 Bill Milburn	For calendar year 1988, this privately held company built 563 single-family detached units for a sales volume of $45,950,000. The homes averaged 1600 sq. ft. and sold for an average of $80,000. Families with children bought 50% of units, 40% went to young married couples, 5% to singles and 2.5% to empty nesters and retirees. Building only in Texas, the company subcontracts 100% of construction activity and employs more than 100 people.
289 **$45,075**	306	232 422 units	**Michaels Group** P.O. Box 887 Latham, N.Y. 12110 James W. Michaels	For calendar year 1988, this privately held firm built and sold 337 single-family attached homes for a sales volume of $33,600,000. Company also built 85 single-family detached homes for sales of $11,475,000. The single-family detached homes averaged 1500 sq. ft. and sold for an average price of $127,500 and the attached units averaged 1000 sq. ft. and sold for $90,000. The company builds only in N.Y. and subcontracts 100% of construction work. Firm employs 51 to 100 people.
290 **$45,000**	—	250 388 units	**John Laing Homes Inc.** 23113 Plaza Pointe Laguna Hills, Calif. 92653 Robert E. Fritts	For calendar year 1988, this subsidiary of John Laing PLC, built and sold 314 single-family detached homes for a sales volume of $39,000,000. Company also built 74 single-family attached homes for $6,000,000. Single-family detached homes averaged 1600 sq. ft. and sold for an average of $124,000. Attached homes averaged 600 sq. ft. and sold for $80,000. For 1989, the company is aggressively pursuing land for new single-family detached developments. Company subcontracts 100% of construction work and has 51 to 100 employees.
291 **$44,971**	582	262 335 units	**Newmark Home Corp.** 10435 Greenbough Stafford, Texas 77477 John E. Harris	For calendar year 1988, this privately held firm and subsidiary Fedrick, Harris Estate Homes, built and sold 335 single-family detached homes for a sales volume of $44,971,924. The single-family detached homes averaged 3000 sq. ft. for an average price of $158,000. Firm builds only in Texas and sells to families with children (60%), young married couples (16%), empty nesters (11%), singles (8%) and retirees (5%). Firm subcontracts 100% of construction work and has 21 to 50 employees.
292 **$44,820**	352	373 122 units	**Zicka Homes Inc.** 11264 Grooms Rd. Cincinnati, Ohio 45242 E. Michael Zicka	For calendar year 1988, this privately held firm and subsidiary Zicka Development, built and sold 122 single-family detached homes for a sales volume of $27,000,000. Firm completed $2,200,000 worth of non-res construction. Land sales accounted for $15,400,000 and rental income and management fees totaled $220,000. The single-family detached homes averaged 2480 sq. ft. and sold for an average price of $221,300. Building only in Ohio, the firm employs 21 to 50 people.
293 **$44,640**	310	91 1238 units	**Contempri Homes Inc.** Stauffer Industrial Park Taylor, Pa. 18504 Victor A. DePhillips	For calendar year 1988, this subsidiary of E.S.I. Industries, Dallas, manufactured and sold 1017 single-family modular units for a sales volume of $34,700,000. Firm also manufactured 221 multifamily modular units for sales of $9,850,000. Other income totaled $90,000. Single-family modular units average 1900 sq. ft. and sell for a wholesale price of $34,200. Multifamily units average 1510 sq. ft. for a wholesale price of $44,500. The firm sells to it's builder network in 13 Eastern states.
294 **$44,455**	245	341 193 units	**Gigliotti Corp.** One Summitt Square Langhorne, Pa. 19047 Chris J. Gigliotti Sr.	For calendar year 1988, this firm and subsidiary of the same name in Bucks County, Pa., built and sold 145 single-family attached units for a sales volume of $21,800,000. Company also built 48 single-family detached homes for sales of $12,480,000. Company did 6 remodeling jobs during the year for $675,000 and non-res construction totaled $365,000 for the same period. Rental income and management fees accounted for $6,060,000 and land sales brought $1,875,000 and general contracting services accumulated $1,200,000. The 3000 sq. ft. single-family detached homes sold for an average of $272,000 and the 1700 sq. ft. attached units sold for an average price of $145,000. Building only in Pa.
295 **$44,380**	—	385 87 units	**Rocky Gorge Communities Inc.** 7900 Westpark Drive McLean, Va. 22102 Christopher S. Dorment	For calendar year 1988, this privately held company built and sold 87 single-family homes for a sales volume of $41,726,000. Land sales accounted for another $2,654,000. The single-family homes average 2900 sq. ft. and sold for an average of $480,000. Building in Md. (80%) and Va. (20%), the company employs 51-100 workers and subcontracts 81 to 99% of construction work. For 1989, the company is starting projects in Potomac and Adelphi, Md. and in Alexandria, Va.
296 **$44,350**	—	397 44 units	**Trojan Properties Inc.** P.O. Box 962 Rancho Mirage, Calif. 92270 Edwin C. Johnsen	For calendar year 1988, this privately held company built and sold 44 single-family detached homes for a sales volume of $43,200,000. Rental income and management fees accounted for another $1,150,000. The single-family homes averaged 4300 sq. ft. and sold for an average price of $980,000. Building only in Calif., the company sells to empty nesters (60%) and retirees (40%). In 1989, the company is developing Morningside, a Rancho Mirage, Calif., community of 360 homes around a Jack Nicklaus golf course. Company has 21 to 50 employees and subcontracts 81 to 99% of its jobs.

THE 400

West Venture's parent firm is London-based Walter Lawrence PLC

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
297 **$44,040**	376	341 200 units	**Whitehawk Partnership** 155 S. El Molino Ave. Pasadena, Calif. 91101 James Oates, L. R. Schield Jr.	For calendar year 1988, this privately held company built and sold 200 single-family detached homes for a sales volume of $38,000,000. Land sales accounted for $5,500,000 and rental income totaled $540,000. Single-family detached homes averaged 3700 sq. ft. and sold for an average price of $500,000. Families with children bought 30% of homes, with young married couples buying 25%, singles 20%, empty nesters 15% and retirees 10%. Building only in Calif., the firm subcontracts 100% of construction work and employs 21 to 50 workers.
298 **$43,851**	—	397 31 units	**Weinstock Construction** 4400 Coldwater Canyon, Studio City, Calif. 91604 Julian Weinstock	For calendar year 1988, this privately held company built and sold 31 single-family detached homes for a sales volume of $14,526,600. The company completed 422 remodeling jobs for sales of $21,850,000 and non-res construction totaled $1,475,000. Rental income and management fees brought an additional $6,000,000. Single-family detached homes averaged 2600 sq. ft. and sold for an average of $425,000. Building only in Calif., this company sold 50% of units to families with children, 25% to young married couples and 25% to retirees. For non-res construction, the company built industrial plants/factories. Company employs 21 to 50 people.
299 **$43,795**	—	396 49 units	**Arker Cos.** 1015 Cedar Lane Woodmere, N.Y. 11598 Sol Arker, Allan Arker	For calendar year 1988, this privately held company and subsidiaries Water Club Assoc. and Warren Cranford Corp. built and sold 49 single-family detached units for a sales volume of $26,950,000. Company also completed 23 remodeling jobs for sales of $6,095,000 and non-res construction totaled $5,350,000. Land sales totaled $3,000,000 and rental income and management fees came to $2,400,000. Single-family detached homes ranged between 3500-4000 sq. ft. and sold for an average price of $550,000. Families with children and empty nesters each bought 48% of the units while singles and young married couples split the remaining 2%. Construction of office buildings accounted for company's non-res activity.
300 **$43,759**	273	285 293 units	**West Venture Development Co.** 6345 Balboa Blvd. Encino, Calif. 91316 Robert Miller, Louis Berkowitz	For calendar year 1988, this subsidiary of Walter Lawrence PLC, London, built and sold 293 single-family detached homes for a sales volume of $30,068,922. Non-res construction totaled $7,395,000 and land sales accounted for $6,295,300. The 1635-square-foot single-family detached homes averaged $124,000. Building only in Calif., families with children bought 70% of homes, with young married couples buying 15%, empty nesters 9%, retirees 4% and singles 2%. Shopping malls comprised the company's non-res construction for 1988. Company subcontracts 100% of construction work and employs 51 to 100 workers.
301 **$43,184**	276	306 262 units	**Writer Corp.** 27 Inverness Dr. E. Englewood, Colo. 80112 George S. Writer Jr.	For calendar year 1988, this publicly held corp., along with subsidiary Writer of Georgia, built and sold 201 single-family detached units for a sales volume of $29,603,000. In addition, the company built 61 single-family attached units for sales of $5,490,000. Rental income and management fees were $3,157,000 and other income accounted for $4,934,000. Single-family detached units averaged 2500 sq. ft. and averaged $147,278. The attached units averaged 1300 sq. ft. and sold for an average of $90,000. Company is active in Colo. (95%) and Ga. (5%). Company subcontracted 81-99% of construction work and has 51 to 100 employees.
302 **$42,771**	—	244 399 units	**Kingsway Construction** 3838 Camino Del Rio N. San Diego, Calif. 92108-1741 Earl H. Cohen	For calendar year 1988, this privately held company and subsidiary Subdivision Mortgage Co. built and sold 399 single-family detached homes for a sales volume of $37,030,649. Non-res construction brought an additional $1,705,000 to the company. Rental income and management fees totaled $643,153 and other income accounted for $3,393,016. Single-family homes averaged 1463 sq. ft. and sold for an average price of $92,809. Families with children accounted for 35% of sales, with young married couples buying 25%, empty nesters 20%, retirees 10% and singles 10%. Building only in Calif., the company subcontracts 81-99% of construction work and has 21 to 50 employees.
303 **$42,688**	—	169 671 units	**Frank Robino Associates** 5189 W. Woodmill Dr., Wilmington, Del. 19808 Paul A. Robino	For calendar year 1988, this privately held company built and sold 222 single-family attached units for a sales volume of $17,790,162. Company also built 39 single-family detached homes for $5,328,400 in sales. Company built 380 apartments for investors valued at $15,770,000 and built 30 apartments for its own investment for a market value of $1,550,000. Company completed 2 remodeling jobs for $138,600 and 11 non-res jobs (office buildings) for $1,069,579. Income and interest came to $527,919, rental income and management fees totaled $470,751 and land sales accounted for $43,000. The single-family detached homes averaged 2100 sq. ft. and sold for an average of $136,626. Attached units averaged 1260 square sq. ft. and averaged $80,136 and apartments averaged 850 sq. ft. and rent for $500. Company builds in Del. (94%) and Pa. (6%).
304 **$42,395**	386	359 159 units	**Kopf Construction Corp.** 32730 Walker Rd. Avon Lake, Ohio 44012 H.R. Kopf	For calendar year 1988, this privately held company and subsidiary Lakeshore Land Development Co. built and sold 93 single-family detached homes for a sales volume of $23,250,000. Company also built and sold 66 single-family attached units for sales of $7,920,000. Land sales accounted for $3,300,000, rental income and management fees generated $3,425,000 and development fees totaled $4,500,000. The single-family detached homes sold for an average price of $250,000 and the attached homes averaged $120,000. Company builds only in Ohio and has more than 100 employees.
305 **$42,310**	359	264 328 units	**Roberts Properties Inc.** P.O. Box 28744 Atlanta, Ga. 30328 Charles S. Roberts	For fiscal year ended 9/30/88, this privately held company and subsidiaries Roberts Property Management Inc. and Roberts Properties Construction Inc. built 328 apartments for investors valued at $20,992,000. Company completed 4 remodeling jobs for sales of $540,000 and non-res construction totaled $6,663,000. Land sales accounted for $9,960,000, rental income and management fees brought $2,305,000 and other income totaled $1,850,000. Apartments averaged 1200 sq. ft. and rent for $675. Building only in Ga., the company plans to build single-family and multifamily homes in Fla. in 1989.
306 **$42,300**	338	259 342 units	**Friedman Homes** 11155 Jersey Rancho Cucamonga Calif. 91730-5148 Paul Friedman	For calendar year 1988, this privately held company built and sold 342 single-family detached units for a sales volume of $42,300,000. Single-family detached homes averaged 1900 sq. ft. and sold for an average of $124,000. Building only in Calif., the company plans new product in Lake Elsinor and San Jacinto, as well as building income property in 1988. Company subcontracts 100% of construction work and has 21 to 50 employees.

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
307 **$41,981**	350	183 617 units	**Holly Corp.** 101 E. 26th St. Tacoma, Wash. 98421 Daniel M. Kelley	For fiscal year ended 3/89, this privately held company and subsidiaries Security Real Estate and Security Realty Advisors, company built and sold 568 apartments for its own investment at a market value of $29,600,000. Company also built 43 single-family detached homes for sales of $3,712,355 and built 6 single-family attached units for $393,450. Land sales accounted for $6,594,100, rental income and management fees brought $805,046 and other income of $876,772. Single-family detached homes averaged 1700 sq. ft. and average $86,300 and the attached units averaged 2000 sq. ft. and sold for $131,150. Apartments averaged 950 sq. ft. and rent for $550. Building only in Wash., company changed name to The Holly Corp. to reflect multifamily construction. Company also added upper management personnel.
308 **$41,939**	—	371 127 units	**Poretsky Building Group** 7900 Westpark Drive Mc Lean, Va. 22102 Martin H. Poretsky	For calendar year 1988, this privately held company built and sold 81 single-family attached units for a sales volume of $24,959,010. Company also built 46 single-family detached units for sales of $15,370,858. Land sales accounted for $1,260,000 and land development fees totaled $350,000. Single-family detached units averaged 2500 sq. ft. and sold for an average price of $270,000. Attached units averaged 2300 sq. ft. and sold for $240,000. Company is active in Md. (80%) and Va. (20%). Firm has 51 to 100 employees.
309 **$41,714**	—	84 1290 units	**Shelter Contractors Inc.** P.O. Box 2324 Greenville, S.C. 29602 Richard S. McAdams	For calendar year 1988, this subsidiary of U.S. Shelter Corp., same town, and subsidiary New Colony Construction Co. Inc., built 1272 apartments for investors at a sales value of $39,126,811. Company also built 18 single-family attached units for sales of $2,587,411. Company is active in S.C. (41%), Va. (36%) and Fla. (23%). Company has 11 to 20 employees.
310 **$41,670**	348	248 390 units	**Amurcon Corp. of Virginia** 1001 E. Main St. Richmond, Va. 23219 Robert W. Schaberg	For calendar year 1988, this privately held company built 340 apartments for its own investment at a market value of $20,850,000. Company also built 50 single-family attached units for sales of $5,490,000. Rental income and management fees accounted for $15,330,000. Apartments averaged 810 sq. ft. and rent for $525, while single-family attached units averaged 1150 sq. ft. and sold for an average price of $110,000. Company builds only in Va., subcontracting 100% of construction work. Company has 21 to 50 employees.
311 **$41,311**	169	332 208 units	**Burnside Construction** 18400 S. Halsted St. Glenwood, Ill. 60425 George Arquilla Jr.	For calendar year 1988, this privately held company built and sold 115 single-family attached units for sales of $19,776,304. Company also built 93 single-family detached units for $14,558,421. Company completed 4 remodeling jobs for $368,178 and non-res construction brought $40,040. Other income totaled $6,306,974 and rental income and management fees were $261,288. Both single-family detached units and attached units averaged 1700 sq. ft., while the detached averaged $156,000 and the attached averaged $172,000. Families with children bought 52% of units, empty nesters 43% and singles 5%. Company builds only in Ill.
312 **$41,244**	332	375 118 units	**DeLuca Enterprises Inc.** 842 Durham Rd. Newtown, Pa. 18940 Alfonso DeLuca	For calendar year 1988, this privately held company built and sold 110 single-family detached units for sales of $29,678,100. Company also built 8 single-family attached units for $553,350. One remodeling job brought $275,000 and non-res construction accounted for $3,825,300. Land sales totaled $5,437,500, rental income and management fees brought $1,304,942 and interest income $170,000. Single-family detached units averaged 3000 sq. ft. and averaged $278,032. Company builds in Pa. (85%) and N.J. (15%). Company has 21 to 50 employees and subcontracts 81-99% of construction work.
313 **$41,219**	—	117 1046 units	**PLH Corp.** P.O. Box 27 Selinsgrove, Pa. 17870 Roger Lyons	For calendar year 1988, this privately held company manufactured and sold 871 mobile homes for sales of $32,000,000 and manufactured 175 multifamily modular units for sales of $6,000,000. Transportation and erection fees, as well as other income, totaled $3,421,700. Mobile homes average 1600 sq. ft. and sell for $36,739 and the modular units average 1300 sq. ft. and sell for $34,000. Company employs more than 100 people.
314 **$40,000**	—	386 84 units	**Pinn Brothers Construction** 1475 Saratoga Ave. #250 San Jose, Calif. 95129 Alan R. Pinn	For fiscal year ended June 1989, this privately held company built and sold 84 single-family detached homes for sales of $33,875,000. Non-res construction totaled $600,000. Land sales generated $4,025,000 and rental income and management fees totaled $1,500,000. Single-family detached homes average 2500 sq. ft. and sold for an average of $400,000. Families with children bought 80% of units, with young married couples buying the remaining 20%. Company formerly built $1 million custom homes, but now builds tract homes. Company expects an increase in production of 300% for 1989. Company employs 21 to 50 workers and subcontracts 81 to 99% of construction work.
315 **$39,855**	378	384 101 units	**Michael T. Rose Associates Inc.** P.O. Box 40 Laurel, Md. 20707 Michael T. Rose	Privately held company in fiscal year ended 12/31/88 built and sold 101 single-family attached units for a sales volume of $14,755,000. Land sales income totaled $14,000,000. Rental income and management fees accounted for $300,000. Miscellaneous income totaled $10,800,000. Sales were to childless couples (50%), singles (15%), families (15%), empty nesters (15%) and retirees (5%). Company is active solely in Md. It subbed out 81 to 99% of its work. Firm employs between 21 and 50 people full time.
316 **$39,848**	319	361 153 units	**Wooldridge Organization** 1500 Green Hill Rd. West Chester, Pa. 19380 Robert E. Wooldridge	Privately held company in calendar year 1988 built and sold 32 single-family detached units for a sales volume of $10,797,753. It also built and sold 121 single-family attached units for a sales volume of $23,871,166. Land sales income totaled $210,000. Rental income and management fees were $4,969,814. Detached product averages 3000 sq. ft. of space for $350,000. Attached product averages 1850 sq. ft. of space for $190,000. Sales were to empty nesters (50%), retirees (30%), families (10%), singles (5%) and childless couples (5%). Firm is active in Pa. (80%) and Calif. (20%). It subbed out between 61 and 80% of its work. Company has more than 100 full-time employees.
317 **$39,567**	460	264 328 units	**Westfield Development** 5266 Rockpointe Ct. Gurnee, Ill. 60031 Roger B. Gatewood	This privately held company in calendar year 1988 built and sold 271 single-family detached units for a sales volume of $34,171,000. It also built and sold 57 single-family attached units for a sales volume of $5,290,000. Land sales income was $106,000. Detached product averages 2350 sq. ft. of space for $161,183. Attached product averages 1450 sq. ft. of space for $101,370. Sales were to families (69%), childless couples (10%), singles (5%), empty nesters (5%) and retirees (1%). Firm is active in Ill. (99%) and Fla. (1%). Subsidiary operations include Westfield Development Corp. of Fla. Firm subbed out 81 to 99% of its work. It employs between 21 and 50 people full time.

THE 400

Radnor builds in Tennessee, Kentucky, Fryling is diversified building Giant

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
318 **$39,560**	296	277 304 units	**James K. Schuler & Associates** 1001 Bishop St. P.T. Honolulu, Hawaii 96813 James K. Schuler	Privately held company in calendar year 1988 built and sold 40 single-family detached units for a sales volume of $8,900,000. It also built and sold 264 single-family attached units for a sales volume of $28,260,000. Land sales accounted for $920,000. Rental income and management fees were $1,480,000. Detached product averages 1730 sq. ft. of space for $225,000. Apartment condominiums average 750 sq. ft. of space for $110,000. Sales were to families (40%), childless couples (30%), singles (15%), empty nesters (14%) and retirees (1%). Firm is active solely in Hawaii. It subbed out 81 to 99% of its work. Company employs between 11 and 20 people full time.
319 **$39,504**	337	236 411 units	**Weitzer Communities Ltd.** 9990 S.W. 77th Ave. Miami, Fla. 33156 Harry Weitzer	In calendar year 1988 this privately held company built and sold 201 single-family detached units for a sales volume of $25,441,797. It also built and sold 210 single-family attached units for a sales volume of $14,062,745. Detached product averages 2100 sq. ft. of space for $126,576. Attached product averages 1150 sq. ft. of space for $66,965. Sales were to retirees (45%), families (20%), childless couples (20%), empty nesters (10%) and singles (5%). Firm is active solely in Fla. It subbed out all of its work. Company has between 21 and 50 full-time employees.
320 **$38,941**	355	229 426 units	**Regency Organization Inc.** 6709 Ridge Rd. Port Richey, Fla. 34668 John Hudson	This privately held company in fiscal year ended 1/31/89 built and sold 411 single-family detached units for a sales volume of $33,906,000. It also built and sold 15 single-family attached units for a sales volume of $846,000. Miscellaneous income accounted for $4,189,000. Detached product averages 1500 sq. ft. of space for $82,500. Attached product averages 1000 sq. ft. of space for $56,400. Sales were to retirees (85%), families (10%) and singles (5%). Firm is active solely in Fla. It subbed out all of its work. It has between 51 and 100 full-time employees.
321 **$38,100**	—	400 17 units	**Crowell & Baker Const. Co.** 152 Rollins Ave. Ste 100 Rockville, Md. 20852 Arden Baker	Privately held company in calendar year 1988 built and sold 3 single-family detached units for a sales volume of $7,050,000. It also built and sold 14 single-family attached units for a sales volume of $7,000,000. Remodeling and renovation jobs accounted for $550,000. Non-res construction of warehouses and medical buildings brought $15,000,000. Land sales income was $3,000,000. Rental income and management fees were $600,000. Detached product averages 12,000 sq. ft. of space for $2,750,000. Sales were all to families. Firm is active solely in Md. It subbed out 81 to 99% of its work. Company employs between 21 and 50 people full time.
322 **$38,000**	302	369 132 units	**Yusem Homes** P.O. Box 2040 Boca Raton, Fla. 33427 Henry H. Yusem	Privately held company in calendar year 1988 built and sold 136 single-family attached units for a sales volume of $38,000,000. Apartment condominiums average 2500 sq. ft. of space for $275,000. Sales were to empty nesters (80%), retirees (15%) and families (5%). Firm is active solely in Fla. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees.
323 **$37,950**	—	326 221 units	**Radnor Homes Inc.** 5050 Saundersville Rd. Old Hickory, Tenn. 37138 David C. McGowan, Jr.	This privately held subsidiary of Radnor Corp., in calendar year 1988 built and sold 157 single-family detached units for a sales volume of $28,260,000. It also built and sold 64 single-family attached units for a sales volume of $9,440,000. Land sales brought $250,000. Detached product averages 2400 sq. ft. of space for $180,000. Attached product averages 1500 sq. ft. of space for $144,500. Firm is active in Tenn. (60%) and Ky. (40%). It subbed out 81 to 99% of its work. Company employs between 51 and 100 people full time.
324 **$37,901**	—	291 284 units	**Williamsburg Properties Inc.** 423 Wards Corner Road Loveland, Ohio 45140 William R. Ryan	This privately held company in calendar year 1988 built and sold 219 single-family detached units for a sales volume of $33,351,340. It also built and sold 65 single-family attached units for a sales volume of $4,550,000. Detached product averages 2300 sq. ft. of space for $152,300. Attached product averages 1500 sq. ft. of space for $70,000. Sales were to families (75%), childless couples (10%), singles (10%), retirees (3%) and empty nesters (2%). Firm is active in Ohio (86%) and Ky. (14%). It subbed out 81 to 99% of its work. Firm has between 51 and 100 full-time employees.
325 **$37,815**	387	203 534 units	**Fryling Construction** 2100 Chicago Drive SW Wyoming, Mich. 49509 Robert E. Fryling	This privately held company in calendar year 1988 built 531 apartments for investors for a sales of $27,750,000. Firm also built and sold 1 single-family detached unit for a sales value of $837,000 and 2 single-family attached units for a sales value of $125,000. Remodeling and renovation jobs accounted for $930,000. Non-res construction had market value of $8,023,000. Rental income and management fees were $150,000. Rental apartments average 950 sq. ft. of space for $550. Firm subbed out 81 to 99% of its work. It has between 51 and 100 full-time employees.
326 **$37,708**	—	273 314 units	**Doyle Wilson Homes** 8310 Capital of Texas Hwy.-100 Austin, Texas 78731 Clark Wilson	Privately held company in calendar year 1988 built and sold 314 single-family detached units for a sales value of $37,708,085. Detached product averages 2850 sq. ft. of space for $120,089. Sales were to families (65%), childless couples (15%), singles (9%), empty nesters (6%) and retirees (5%). Firm is active solely in Texas. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees. Subsidiary operations include Wilson Development Co., Austin, Texas.
327 **$37,434**	—	139 851 units	**Benchmark Communities, Inc.** 630 Hay Ave. Brookville, Ohio 45309 Daniel P. Riedel	This privately held company in calendar year 1988 built 851 apartments with a market value of $35,814,181 for investors. Of the 851 units built by Benchmark Communities Inc., 528 were multifamily modular units. Rental income and management fees were $1,012,119. Miscellaneous income totaled $608,290. Rental apartments average 865 sq. ft. of space for $450 a month. Firm is active solely in Ohio. It subbed out 81 to 99% of its work. Company has between 51 and 100 full-time employees. Subsidiary operations include Benchmark Homes Inc., Brookville, Ohio.
328 **$37,415**	373	269 317 units	**Wellesley Construction Co. Inc.** 7495 Cabernet Rd. W. Bloomfield, Mich. 48033 John Casey	This privately held company in latest fiscal year ended 4/11/89 built and sold 137 single-family detached units for a sales value of $22,605,000. It also built 180 apartments with a market value of $7,560,000 for its own investment. Remodeling and renovation jobs accounted for $3,950,000. Non-res construction of shopping centers and warehouses totaled $3,300,000. Detached product averages 2400 sq. ft. of space for $160,000. Rental apartments average 1450 sq. ft. of space for $895 to $1160 a month. Sales were to childless couples (45%), empty nesters (21%), singles (14%), retirees (12%) and families (8%). Firm is active in N.C. (40%), Mich. (35%), Tenn. (15%) and Md. (10%). It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees.

THE 400

Hills Developers makes debut among Giants, Hayden is one of Missouri's largest builders

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
329 $37,322	342	239 408 units	**New Fortis Corp.** P.O. Box 485 King, N.C. 27021 Marvin D. Gentry	Privately held company in fiscal year ended 4/30/89 built and sold 408 single-family detached units for a sale value of $37,322,000. Detached product averages 1500 sq. ft. of space for $91,500. Sales were to childless couples (49%), singles (27%), families (18%) and empty nesters (6%). Firm is active solely in N.C. It subbed out all of its work. Company has between 51 and 100 full-time employees.
330 $37,051	289	381 103 units	**Whitecliff Co., Inc.** 859 San Mateo Dr. San Mateo, Calif. 94401 Paul C. Peterson	Privately held company in calendar year 1988 built and sold 25 single-family detached units for a sales volume of $17,498,778. It also built and sold 78 single-family attached units for a sales volume of $19,552,366. Firm is active solely in Calif.
331 $36,968	393	390 63 units	**Garden State Land Group** 101 Interchange Plaza Cranbury, N.J. 08512 J. Millstein, S. Bernard	Privately held company in calendar year 1988 built and sold 63 single-family detached units for a sales volume of $27,136,000. Non-res construction of warehouses had a market value of $4,200,000. Land sales were $688,000. Rental income and management fees totaled $4,944,000. Detached product averages 3700 sq. ft. of space for $430,730. Sales were to families (60%), childless couples (20%) and empty nesters (10%). Firm is active solely in N.J. It subbed out 81 to 99% of its work. Company has between 51 and 100 full-time employees.
332 $36,200 est.	196	291 284 units est.	**D & S Co.** 11650 Riverside # 200 N. Hollywood, Calif. 91602 Peter J. Sidlow	*Professional Builder* estimates that this privately held builder in 1988 built 197 houses and 87 for-sale attached units for revenues shown.
333 $36,015	—	395 54 units	**Bresler & Reiner Inc.** 401 M St. S.W. Washington, D.C. 20024 Charles S. Bresler Burton Reiner	Publicly held corporation in calendar year 1988 built and sold 54 single-family detached units for a sales volume of $7,052,000. Rental income and management fees were $11,959,000. Miscellaneous income accounted for $17,004,000. Net income of total dollar volume was 14.9%. Firm is active in Pa., Va., Md. and N.J. It subbed out 81 to 99% of its work. Firm has more than 100 full-time employees.
334 $35,946	—	172 648 units	**Hills Developers, Inc.** 7420 Montgomery Road Cincinnati, Ohio 45236 Stephen Guttman	Privately held company in calendar year 1988 built and sold 384 single-family attached units for a sales volume of $22,626,000. It also built 264 apartments with a market value of $7,920,000 for its own investment. Non-res construction of retail stores totaled $600,000. Rental income and management fees were $2,600,000. Miscellaneous income accounted for $2,200,000. Firm is active in Ohio (65%), Ky. (21%) and Ind. (14%).
335 $35,800	—	372 125 units	**Pacifica Corp.** 200 N. Westlake Blvd. Westlake Village, Calif. 91362 Dana Arnold	This privately held company in calendar year 1988 built and sold 125 single-family detached units for a sales volume of $35,000,000. Rental income and management fees accounted for $800,000. Detached product averages 2500 sq. ft. of space for $280,000. Sales were to families (70%), childless couples (20%) and singles (10%). Firm is active solely in Calif. It subbed out all of its work. Company has between 21 and 50 full-time employees.
336 $35,698	304	366 145 units	**Coast Construction** 480 W. Capricorn Brea, Calif. 92621 Nat S. Harty	Privately held company in calendar year 1988 built and sold 18 single-family detached units for a sales volume of $1,530,000. It also built and sold 127 single-family attached units for a sales volume of $26,677,581. Land sales accounted for $3,100,000. Miscellaneous income totaled $4,390,900. Detached product averages 1350 sq. ft. of space for $85,050. Attached product averages 1625 sq. ft. of space for $266,500. Firm is active solely in Calif.
337 $35,625	—	326 221 units	**Henry Fischer Builder** 1035 Eaton Dr. Ft. Wright, Ky. 41017 Henry K. Fischer	Privately held company in fiscal year ended 3/31/89 built and sold 221 single-family detached units for a sales volume of $35,015,707. Land sales accounted for $609,800. Detached product averages 2550 square of space for $158,400. Sales were to families (80%), childless couples (15%), empty nesters (3%) and singles (2%). Firm is active in Ky. (65%) and Ohio (35%). Firm subbed out 81 to 99% of its work. Company has between 51 and 100 full-time employees.
338 $35,500	370	321 225 units	**Hayden Co.** One The Pines Court St. Louis, Mo. 63141 C. Barry Hayden	Privately held company in calendar year 1988 built and sold 115 single-family detached units for a sales volume of $20,000,000. It also built and sold 110 single-family attached units for a sales volume of $14,500,000. Non-res construction of office condominiums totaled $1,000,000. Detached product averages 2450 sq. ft. of space for $175,000. Attached product averages 1600 sq. ft. of space for $132,000. Firm is active solely in Mo. It subbed out all of its work.
339 $35,399	316	377 110 units	**Joe Harden Builder Inc.** P.O. Box 4910 Hilton Head, SC 29938 Joseph C. Harden	Privately held company in fiscal year ended 1/31/89 built and sold 4 single-family detached units for a sales volume of $1,933,000. It also built and sold 106 single-family attached units for a sales volume of $18,752,000. Market value of 40 high-rise residential units was $5,360,000. Remodeling and renovation jobs had a market value of $579,000. Non-res construction of retail stores, office buildings, restaurants and recreational buildings was $8,775,000. Firm is active solely in S.C. It subbed out between 61 and 80% of its work.
340 $35,000	—	334 207 units	**Medici Inc.** 18818 Teller Ave. Irvine, Calif. 92715 Gregory DiRienzo	Privately held company in fiscal year ended 2/28/89 built and sold 207 single-family detached units for a sales volume of $35,000,000. Detached product averages 2000 sq. ft. of space for $185,000. Firm is active in Calif. (50%) and Nev. (50%). It subbed out all of its work. Company has between 11 and 20 full-time employees. Subsidiary operations include Medici Inc. of Nev.
341 $34,940	362	394 55 units	**Value Group Inc.** 1122 Clifton Ave. Clifton, N.J. 07013 Andrew B. Abramson	Privately held company in fiscal year ended 8/31/88 built and sold 55 single-family attached units for a sales volume of $17,940,000. Rental income and management fees were $17,000,000. Detached product averages 2100 sq. ft. of space for $325,000. Sales were to childless couples (25%), families (25%), empty nesters (25%) and retirees (25%). Firm is active solely in N.J. It has between 51 and 100 full-time employees.

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Oberer builds in Ohio, Kentucky, J.P. Rhodes active in California

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
342 $34,832	294	392 58 units	**Lomas Group** 322 Eighth St., Ste. 100 Del Mar, Calif. 92014 John J. Parks	Privately held company in calendar year 1988 built and sold 27 single-family detached units for a sales volume of $11,305,000. It also built and sold 31 single-family attached units for a sales volume of $7,755,000. Non-res construction of office buildings had a market value of $15,252,000. Land sales accounted for $520,000. Detached product averages 2711 sq. ft. of space for $419,000. Attached product averages 1983 sq. ft. of space for $250,000. Firm is active solely in Calif. It subbed out 100% of its work.
343 $34,775	394	299 270 units	**Crosswinds Communities** 7380 Meadowridge Circle Bloomfield, Mich. 48033 Bernard Glieberman	Privately held company in calendar year 1988 built and sold 270 single-family attached units for a sales volume of $30,000,000. Land sales totaled $4,700,000. Rental income and management fees were $75,000. Attached product averages 1300 sq. ft. of space for $125,000. Sales were to singles (40%), childless couples (30%), empty nesters (15%), retirees (10%) and families (5%). Firm is active solely in Mich. It subbed out 41 to 60% of its work. Company has between 51 and 100 full-time employees.
344 $34,756	—	388 78 units	**Socaland Development** 2522 N. Santiago Blvd. Orange, Ca. 92667 Ray Polverini	Privately held company in calendar year 1988 built and sold 78 single-family detached units for a sales volume of $28,300,000. Non-res construction of warehouses had a market value of $5,720,000. Land sales accounted for $400,000. Rental income and management fees were $336,000. Detached product averages 2850 sq. ft. of space for $362,820. Firm is active solely in Calif. It subbed out all of its work. Company has between 11 and 20 full-time employees.
345 $34,695	372	330 209 units	**Chrisdon Communities** 9900 W. Sample Rd. Coral Springs, Fla. 33065 James Morgan	This privately held company in calendar year 1988 built and sold 172 single-family detached units for a sales volume of $31,395,000. It also built and sold 37 single-family attached units for a sales volume of $3,300,000. Detached product averages 2300 sq. ft. of space for $182,500. Attached product averages 1750 sq. ft. of space for $89,200. Firm is active solely in Fla. Company has between 21 and 50 full-time employees. Subsidiary operations include Chrisdon Housing Corp., Chrisdon Development Corp. and Chrisdon Custom Home Corp.
346 $34,554	398	308 256 units	**Parker Lancaster Corp.** 711 Moorefield Park Dr. Richmond, Va. 23236 J. Russell Parker III	This privately held company in calendar year 1988 built and sold 256 single-family detached units for a sales volume of $32,040,978. Non-res construction of warehouses, office buildings and recreational buildings totaled $1,978,892. Miscellaneous income accounted for $534,933. Detached product averages 1895 sq. ft. of space for $125,160. Sales were to families (73%), empty nesters (12%), childless couples (12%), retirees (2%) and singles (1%). Firm is active in Va. (80%) and N.C. (20%). It subbed 81 to 99% of its work. Company has between 51 and 100 full-time employees. Subsidiary operations include Parker Lancaster Corp. of N.C.
347 $34,383	392	380 104 units	**Bush Development Corp.** 5532 Raby Rd. Norfolk, Va. 23502 L.T. Bush	This privately held company in calendar year 1988 built and sold 104 single-family attached units for a sales volume of $7,957,000. Construction of high-rise residential units accounted for $9,000,000. Land sales totaled $1,345,000. Rental income and management fees were $15,131,000. Attached product averages 1150 sq. ft. of space for $76,000. Rental apartments average 850 sq. ft. of space for $780 a month. Firm is active in District of Columbia (50%), Va. (30%) and Md. (20%). Subsidiary operations include Bush Construction Corp.
348 $34,300	—	378 110 units	**Bukiet Bldg. & Mgmt. Co.** 855 Valley Rd. Suite 3000 Clifton, N.J. 07013 Joseph Bukiet	This privately held company in calendar year 1988 built and sold 110 single-family attached units for a sales volume of $17,300,000. Non-res construction of shopping centers and retail stores had a market value of $5,000,000. Land sales totaled $2,500,000. Rental income and management fees were $9,500,000. Attached product averages 1600 sq. ft. of space for $154,000. Firm is active solely in N.J. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees. Subsidiary operations include Poet's Corner Inc., Poet's Square and Spruce Edge.
349 $34,260	192	392 58 units	**Dimcas Inc.** 621 SW 72nd Ave. Pembroke Pine, Fla. 33023 W. Phil McConaghey	Privately held company in calendar year 1988 built and sold 10 single-family detached units for a sales volume of $1,260,000. It also built and sold 48 single-family attached units for a sales volume of $3,792,000. Remodeling and renovation jobs accounted for $6,000,000. Non-res construction of shopping centers and office buildings had a market value of $23,150,000. Land sales totaled $28,000. Rental income and management fees were $30,000. Detached product averages 2300 sq. ft. of space for $126,000. Attached product averages 1280 sq. ft. of space for $79,000. It has between 6 and 10 full-time employees.
350 $34,113	365	237 411 units	**Oberer Development Co.** 4324 Webster St. Dayton, Ohio 45414 George R. Oberer	Privately held company in calendar year 1988 built and sold 99 single-family detached units for a sales volume of $13,150,511. Firm built and sold 89 single-family attached units for a sales volume of $8,262,849. Company built 55 apartments with a market value of $2,400,000 for investors. It also built 168 apartments with a market value of $8,500,000 for its own investment. Non-res construction of office buildings and restaurants totaled $300,000. Land sales accounted for $200,000. Rental income and management fees brought $1,300,000. Detached product averages 2300 sq. ft. of space for $132,833. Attached product averages 1800 sq. ft. of space for $92,841. Firm is active in Ohio (95%) and Ky. (5%). It subbed out all of its work. Subsidiary operations include Gold Key Homes, Dayton, Ohio.
351 $34,049	388	357 163 units	**J.P. Rhoades Dev.** P.O. Box 1973 Santa Ana, Calif. 92702 Jeffrey P. Rhoades	Privately held company in calendar year 1988 built and sold 163 single-family detached units for a sales volume of $32,545,000. Rental income and management fees were $1,427,000. Miscellaneous income accounted for $77,000. Detached product averages 2082 sq. ft. of space for $199,663. Firm is active solely in Calif. It subbed out all of its work. Company has between 11 and 20 full-time employees.
352 $33,480	279	368 137 units	**Berkeley Realty Group** 21 Bleeker St. Millburn, N.J. 07041 John B. Opitz	This subsidiary of Berkeley Federal Savings & Loan, Millburn, N.J. in fiscal year ended 09/30/88 built and sold 97 single-family detached units for a sales volume of $25,566,670. It also built and sold 40 single-family attached units for a sales volume of $7,914,062. Detached product averages 2300 sq. ft. of space for $250,000. Attached product averages 1800 sq. ft. of space for $175,000. Firm is active solely in N.J. It subbed out 81 to 99% of its work. Company has between 51 and 100 full-time employees. Subsidiary operations include B.W. Windsor Corp.
353 $32,900	345	356 167 units	**Owen Development** 2035 S. Myrtle Ave. Monrovia, Calif. 91016 Rick J. Owen	Privately held company in calendar year 1988 built and sold 167 single-family detached units for a sales volume of $30,000,000. Non-res construction of industrial plants had a market value of $2,400,000. Rental income and management fees were $500,000. Detached product averages 2200 sq. ft. of space for $230,000. Sales were all to families. Firm is active solely in Calif. It subbed out all of its work. Company has between 6 and 10 full-time employees.

THE 400

John Cooley Co. builds 400 rentals, Key Co. concentrates on for-sale units

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
354 **$32,850**	—	**283** 297 units	**Beverly Hills Development** 1700 Highway 491 Beverly Hills, Fla. 32665 Ronald J. Collins	This privately held firm reported building 297 houses for $23 million in 1988. Land sales amounted to [illegible]6.75 million, utility revenues were $2.6 million and rental income and management fees were $500,000. Active in Fla. Houses average 1400 sq. ft. and sell for $80,000. Subbed out 8[illegible]-99% of construction work. Has more than 100 employees.
355 **$32,700**	—	**328** 218 units	**Westway Construction** 210 W. River Dr. St. Charles, Ill. 60174 James N. Urhausen	Privately held builder in fiscal year ended 9/30/88 reported building 180 houses for $27 million in sales and [illegible] attached homes for $5.7 million. Active solely in Ill. Houses average 2000 sq. ft. and sell for $150,000 and attached homes average 1400 sq. ft. and sell for $130,000. Sells primarily to families with children. Subbed out 21 to 40% of construction work. Has more than 100 employees.
356 **$32,548**	400	**311** 250 units	**Community Construction** 5407 Stockdale Hwy. Bakersfield, Calif. 93309 James R. Trigueiro	Privately held company in calendar year 1988 built and sold 250 single-family detached units for a sales volume of $30,018,546. Non-res construction of office buildings had a market value of $500,000. Rental income and management fees brought $1,030,115. Miscellaneous income accounted for $1,000,000. Detached product averages 1750 sq. ft. of space for $120,000. Firm is active in Calif. (89%) and Nev. (11%). It subbed out all of its work. Company has between 21 and 50 full-time employees. Subsidiary operations include Community Construction Co. of Nevada and Community Construction of Nevada-Western.
357 **$32,538**	—	**331** 209 units	**Mangano Company Inc.** 1840 S. Central Ave Visalia, Calif. 93277 Andrew D. Mangano	Privately held company in fiscal year ended 6/30/88 built and sold 205 single-family detached units for a sales volume of $16,133,826. Subsidiary operation, The Lakes, built and sold 4 single-family detached units for a sales volume of $558,849. Non-res construction of shopping centers and office buildings had a market value of $15,250,000. Land sales brought $595,868. Detached product averages 1450 sq. ft. of space for $78,701. Firm is active solely in Calif. Company has between 21 and 50 full-time employees. Subsidiary operations include Mangano Construction Co., Mangano Family Properties and The Lakes.
358 **$32,240**	—	**324** 225 units	**RWS Development Corp.** 9650 W. 194th St. Mokena, Ill. 60448 Robert W. Strutz	This privately held company in calendar year 1988 built and sold 169 single-family detached units for a sales volume of $18,729,354. It also built and sold 56 single-family attached units for a sales volume of $5,844,936. Land sales brought $6,768,000. Miscellaneous income accounted for $898,665. Detached product averages 1800 sq. ft. of space for $110,000. Attached product averages 1550 sq. ft. of space for $100,000. Firm is active solely in Ill. Subsidiary operations include RWS Properties Corp., Illinois Builders Supply and Mokena Carpentry.
359 **$32,200**	—	**243** 400 units	**John Cooley Co.** 36250 Dequindre Sterling Heights, Mich. 48310 Dale N. Scrace	This subsidiary of Dart Properties Inc. in calendar year 1988 built 400 apartments with a market value of $15,000,000 for its own investment. It also built 108 high-rise residential units with a market value of $11,000,000. Remodeling and renovation jobs accounted for $2,000,000. Non-res construction totaled $4,200,000. Rental apartments average 600 sq. ft. of space for $550. Firm is active solely in Mich. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees.
360 **$32,000 est.**	298	**144** 800 units est.	**Clark-Wayland-Tarver** 4117 N. 44th St. Phoenix, Ariz. 85018 Jere L. Clark	This privately held company in calendar year 1988 built, by *Professional Builder* estimates, 800 apartments with an estimated market value of $32,000,000 for investors.
361 **$31,865**	—	**255** 359 units	**Unique Construction Inc.** 3511 W. Olympic Blvd. Los Angeles, Calif. 90019 Chang Lee	Privately held company in fiscal year ended 9/30/88 built and sold 9 single-family attached units for a sales volume of $1,665,000. It also built 350 apartment units with a market value of $28,000,000. Non-res construction of shopping centers and office buildings had a market value of $21,200,000. Apartment condominiums average 1850 sq. ft. of space for $185,000. Rental apartments average 750 sq. ft. of space. Firm is active solely in Calif. It subbed out 81 to 99% of its work. Company has between 11 and 20 full-time employees.
362 **$31,800**	312	**252** 367 units	**Key Company** P.O. Box 20207 Greensboro, N.C. 27420 John M. Garrity	This publicly corporation in fiscal year ended 10/31/88 built and sold 236 single-family detached units for a sales volume of $22,900,000. It also built and sold 131 single-family attached units for $8,200,000. Land sales accounted for $700,000. Co. reported net loss of 18%. Detached product averages 1800 sq. ft. of space for $97,000. Attached product averages 1200 sq. ft. of space for $65,000. Apartment condominiums average 1000 sq. ft. of space for $55,000. Firm is active in N.C. (90%) and Fla. (10%). Subsidiary operations include Key Homes Inc., N.C., and Key Homes of Florida.
363 **$31,489**	—	**343** 191 units	**Channing Corp.** 1555 Palm Beach Lakes West Palm Beach, Fla. 33401 Joel B. Channing	This privately held company in calendar year 1988 built and sold 191 single-family detached units for a sales volume of $31,489,000. Attached product averages 1590 sq. ft. of space for $167,550. Sales were to empty nesters (30%), retirees (20%), families (20%), singles (15%) and childless couples (15%). Firm is active solely in Fla. It subbed out 81 to 99% of its work. Company has between 21 and 50 full-time employees.
364 **$31,000**	369	**278** 302 units	**Homes by Dave Brown** 2164 E.Broadway Rd. Tempe, Ariz. 85282 David M. Brown	This privately held company in calendar year 1988 built and sold 302 single-family detached units for a sales volume of $31,000,000. Detached product averages $94,000. Sales were to families (70%), childless couples (10%), empty nesters (10%) and singles (10%). Firm is active in Ariz. (83%) and Nev. (17%). It subbed out all of its work. Company has between 51 and 100 full-time employees.
365 **$30,947**	—	**319** 237 units	**Estridge Cos.** 148 W. Carmel Drive Carmel, Ind. 46032 Paul E. Estridge	This privately held company in calendar year 1988 built and sold 131 single-family detached units for a sales volume of $22,230,000. It also built and sold 106 single-family attached units for a sales volume of $8,352,000. Land sales totaled $365,000. Luxury detached product averages 5000 sq. ft. of space for $580,500. Production housing averages 1480 sq. ft. of space for $100,000. Attached product averages 1100 sq. ft. of space for $78,800. Firm is active solely in Ind. Company has between 51 and 100 full-time employees. Subsidiary operations include Paul E. Estridge Corp., Estridge Group and Estridge Development Co.

THE 400

Multifamily Giant Harold Moore builds affordable homes in Tennessee, Southeast

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
366 $30,940	299	260 340 units	**Wynne Building Corp.** 12804 S W 122nd Ave Miami, Fla 33186 Joel F Wynne	This privately held company in fiscal year ended 3/31/88 built and sold 340 single-family detached units for a sales volume of $15,640,000 Non-res construction of warehouses and restaurants had a market value of $4,600,000 Rental income and management fees brought $10,700,000 Detached product averages 1440 sq ft of space for $46,000 Sales were entirely to retirees Firm is active solely in Fla It subbed out 61 to 80% of its work Company has more than 100 full-time employees Subsidiary operations include Spanish Lakes Communities.
367 $30,637	—	325 223 units	**Leader Enterprises Inc.** 6056 Resources Memphis, Tenn 38134 Kirk Bailey	This subsidiary of Leader Federal Bank For Savings, Memphis, Tenn., in calendar year 1988 built and sold 200 single-family detached units for a sales volume of $23,900,000 It also built and sold 23 single-family attached units for a sales volume of $1,700,000 Land sales income totaled $3,237,959 Rental income and management fees were $940,000 Miscellaneous income totaled $860,000 Firm is active solely in Tenn Subsidiary operations include Faxon Gillis Homes and Faxon Homes
368 $30,500	—	184 614 units	**Hunt Properties Inc.** 2600 Fairview Rd Raleigh, N.C. 27608 K Neal Hunt	Privately held company in fiscal year ended 11/31/88 built and sold 10 single-family detached units for a sales volume of $1,400,000 Firm built and sold 30 single-family attached units for a sales volume of $3,000,000 Company built 200 apartments with a market value of $4,000,000 for investors It also built 374 apartments with a market value of $14,000,000 for its own investment Remodeling and renovation jobs accounted for $200,000. Land sales brought $3,900,000 Rental income and management fees totaled $4,000,000 Firm is active in N.C. (40%), Va (40%) and S.C. (20%). It subbed out 81 to 99% of its work. Company has more than 100 full-time employees. Subsidiary operations include Wallace-Hunt Associates, Raleigh, N.C.
369 $30,298	—	266 324 units	**Good Value Homes** 1460 93rd Lane, N.E. Blaine, Minn 55434-4396 Betty Hardle	This privately held company in calendar year 1988 built and sold 184 single-family detached units for a sales volume of $18,726,135 It also built and sold 140 single-family attached units for a sales volume of $9,277,276 Land sales brought $1,610,982 Rental income and management fees totaled $162,960 Miscellaneous income accounted for $521,401 Detached product averages 1292 sq ft of space for $101,224 Attached product averages 1091 sq ft of space for $67,305 Firm is active solely in Minn It subbed out all of its work Company has between 51 and 100 full-time employees Subsidiary operations include G.V.H. Financial Services Inc Blaine, Minn
370 $30,231	292	145 799 units	**DeLuxe Homes of Pa.** 499 W. 3rd St. P.O. Berwick, Pa 18603 Donald E Meske	This privately held company in fiscal year ended 4/30/89 built and sold 33 single-family detached units for a sales volume of $4,300,000 Firm built and sold 3 single-family attached units for a sales volume of $360,000 Company manufactured 370 single-family modular units for a sales volume of $13,394,325 and 393 multifamily modular units for a sales volume of $12,176,849 Firm is active in N.Y. (41.5%), N.J. (25%), Pa (9.4%), Mass (9.4%) and Conn (8%). Total activity in Del., Vt., R.I., Maine, Va., N.H., Washington D.C. and Md is 6.7%. Subsidiary operations include DeLuxe Development Corp and DeLuxe Development of New York Inc.
371 $30,048	371	118 1035 units	**Poloron Homes of Pa.** 74 Ridge Rd. P.O. Middleburg, Pa 17842 Martin S. Altman	This subsidiary of Poloron Product Inc (listed on NASDAQ) in calendar year 1988 manufactured 426 mobile homes for a sales volume of $10,244,000 It also manufactured 609 single-family modular units for a sales volume of $19,804,000 Net income of total dollar volume was 4%. Detached product averages 1150 sq ft of space for $29,032 Firm has more than 100 full-time employees
372 $29,475	—	344 190 units	**Goodman Homes Inc.** 1424 Gables Ct Plano, Texas 75075 Stephen L Goodman	In calendar year 1988 this company built and sold 190 single-family detached homes for $28,500,000 income from land sales totaled $975,000 Homes averaged 2350 sq ft in size and sold for $164,750 Builds exclusively in Texas Last year Goodman Homes was the first major Dallas home builder to buy lots in Stonebridge Ranch, a 6600-acre planned community Goodman Land & Development Inc is a subsidiary
373 $28,708	235	335 206 units	**Capital Homes Maryland** 8965 Guilford Rd Columbia, Md 21046 D Terrence MacHamer	In the fiscal year ended 9/30/88, this subsidiary of Trafalgar House Residential Inc built and sold 29 single-family detached homes for $6,177,000 and 177 single-family attached homes for $21,316,000 It also had income from land sales of $1,215,500 Capital Homes was split into two companies at the end of fiscal year 1988, these figures represent sales from the Md company only Detached homes averaged 2600 sq ft and sold for $213,000 Attached product averaged 1500 sq ft and sold for $120,500 Builds exclusively in Md
374 $28,698	—	248 390 units	**Sun State Development** 4110 Florida Ave Lakeland, Fla 33803 Donald K Stephens	Privately held company built and sold 308 single-family detached homes in calendar year 1988 for a sales volume of $21,098,000 It also built and sold 72 single-family attached units for $3,600,000 and 10 apartments for its own investment having a market value of $800,000 Other income was received from land sales ($2,100,000) and rental income and management fees ($1,100,000). Detached units averaged 1450 sq ft and sold for $68,500 Attached units averaged 950 sq ft and rented for $495 a month Apartments averaged 785 sq ft and rented for $390 a month Builds exclusively in Fla
375 $28,619	—	315 245 units	**Stonehedge Constr. Co.** 4400 St Andrews Rd Columbia, S.C. 29210 Steven W Mungo	Privately held company built 241 single-family detached homes for $17,706,535 in the fiscal year ended 9/30/88 It also built 4 apartments for its own investment, these had a market value of $500,000 Company completed 9 remodeling jobs for $116,952 Balance of income was from land sales ($9,717,104), rental income and management fees ($332,534) and real estate commissions ($246,051) Detached homes averaged 1450 sq ft and sold for $72,000 Builds exclusively in S.C. Development subsidiaries include Friarsgate Inc, Whitehall Corp Inc and Riverwalk Inc
376 $28,500	—	360 155 units	**Acuff & Rhodes** P.O. Box 6507 Leawood, Kan 66206 J Acuff, D Rhodes	In calendar year 1988, this privately held company built 155 single-family detached homes for $26,100,000 in sales Income from land sales totaled $2,400,000 Homes averaged 2400 sq ft and sold for $170,000 Families with children bought 65% of the units, young married couples without children, 15%, empty-nesters, 10%, singles, 5%, and retirees, 5% Builds in Kan (65%), Colo (20%) and Mo (15%). Acuff Rhodes Group is a land development subsidiary
377 $28,250	—	374 120 units	**Sabatello Cons. of Fla.** 631 U.S. Hwy #1, N. Palm Beach, Fla 33408-4698 Carl M Sabatello	Privately held company built 40 single-family detached homes for $14,000,000 in calendar year 1988, and 80 single-family attached homes for $10,400,000 It also received $3,850,000 from land sales Recent projects in PGA National include Fairway Villas (46 luxury homes), The Island (107 homes) and Heather Run (112 villas) Sabatello Development Corp is a subsidiary

ANNUAL REPORT OF HOUSING'S GIANTS '89

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
378 **$28,000**	—	358 160 units	**Cunningham Barisic Dev.** 340 S. Flower St. Orange, Calif. 92668 David M. Cunningham	In the fiscal year ended 11/30/88, this privately held company built 160 single-family detached homes for $28,000,000. Units averaged 2000 sq. ft. for $125,000. Sales were 70% to families with children, 15% to singles and 15% to empty nesters. Builds exclusively in Calif. Employs 11 to 20 people full time.
379 **$27,800**	—	376 112 units	**Elkington Realty & Dev.** 168 Beale St. Memphis, Tenn. 38103 John Elkington	Privately held company built 112 single-family attached homes for $6,800,000 in calendar year 1988. Other income was received from land sales ($6,000,000), rental income and management fees ($1,500,000) and the sale of apartments ($13,500,000). Units averaged 1400 sq. ft. and sold for $65,000. Empty nesters bought 60% of the homes, the remaining 40% of sales were to singles. Operates in Tenn. (80%) and Fla. (20%). In 1988, company changed name from Beale Street Management to Elkington and re-entered northwest Fla. after a two-year absence.
380 **$27,675**	348	364 148 units	**Karnell Group** 44 Stelton Rd. Suite 300 Piscataway, N.J. 08854 Robert L. Karnell	In calendar year 1988, privately held company built 148 single-family attached homes for $22,912,000 in sales. Other income was generated by land sales ($2,900,000) non-res ($820,000), rental income and management fees ($559,000), and carpentry, sales, interest and other sources ($484,000). Apartment condominiums averaged 1465 sq. ft. and sold for $154,810. Builds exclusively in N.J. Recent projects include Van Deventer Woods (single-family) and Colony Club at Sayreville (townhouses).
381 **$27,620**	336	342 192 units	**Park Place Group** 2960 Camino Diablo Walnut Creek, Calif. 94596 Dale A. Frost	Privately held company built 192 apartments for its own investment in calendar year 1988. These had a market value of $18,520,000. Remodeling work generated $3,100,000, and company also received $6,000,000 in rental income and management fees. Apartments averaged 800 sq. ft. and rented for $850 a month. Builds exclusively in Calif. Recent projects include Boardwalk and Evergreen Ridge (residential) and an office building rehab, Treat Plaza.
382 **$27,400**	—	317 240 units	**Greater Midwestern Dev.** P.O. Box 528 Naperville, Ill. 60566 James K. Oehlberg	In calendar year 1988, this privately held company built 80 single-family detached homes for $9,200,000, and 160 single-family attached homes for $15,200,000. Income from land sales totaled $3,000,000. Detached units averaged 1600 sq. ft. for $115,000. Attached units averaged 1200 sq. ft. for $95,000. Recent projects include Colony of Fox Valley (single-family) and Eagle Trace (duplexes). Builds exclusively in Ill.
383 **$27,100**	389	296 275 units	**Bovis/Brunning Homes** 2951 Flowers Rd., S. Atlanta, Ga. 30341 Geoffrey D. Brunning	Subsidiary of Bovis Homes Ltd., London, England, built 275 single-family detached homes for $26,000,000 in calendar year 1988. Company also received income from land sales ($1,000,000) and rental income and management fees ($100,000). Homes averaged 1700 sq. ft. and sold for an average price of $94,545. Builds in Fla. (60%) and Ga. (40%). Employs 21 to 50 people.
384 **$26,643**	390	337 205 units	**Mayer Homes** 1799 New Smizer Mill Rd. St. Louis, Mo. 63026 J. Randall Mayer	Privately held company in calendar year 1988 built 205 single-family detached homes for $24,691,992. It also received rental income and management fees totaling $514,739, and income from other sources totaling $1,436,919. Homes averaged 1800 sq. ft. and sold for an average price of $120,450. Families with children bought 50% of the units; young married couples without children, 25%; singles, 10%, empty nesters, 10% and retirees 5%. Builds exclusively in Mo.
385 **$26,600**	—	132 939 units	**Harold Moore & Assoc.** P.O. Box 756 Fayetteville, Tenn. 37334 Bill Landers	In calendar year 1988, this privately held company built 225 single-family attached homes for $5,000,000 in sales. It also built 714 apartments for investors for $20,400,000, and completed one remodeling job for $1,200,000. Apartment condominiums averaged 1300 sq. ft. and sold for an average price of $90,000. Rental apartments averaged 950 sq. ft.; average monthly rent was $500. Builds in Tenn. (70%), Fla. (17%), N.C. (10%) and Ala. (3%).
386 **$26,266**	—	353 167 units	**Cinco Development Co.** 763 New Ballas Road S. St. Louis, Mo. 63141 G.J. Miller	In the fiscal year ended 10/31/88, this privately held company built 167 single-family detached homes for $22,017,150 in sales. Income from carpentry subcontracting work totaled $4,249,000. Homes averaged 2200 sq. ft. and sold for an average price of $200,000. Operates only in Mo. Recent projects in St. Louis County include Turnberry Place (35 lots), Harbors of Lake Chesterfield (84 lots) and Remington Oaks (90 lots). Employs 51 to 100 people.
387 **$26,230**	334	350 175 units	**Crowell Industries Inc.** 1425 W. Foothill Blvd. Upland, Calif. 91786 Harry C. Crowell	Privately held company in the fiscal year ended 11/30/88 built 175 single-family detached homes for $17,130,000 in sales. Non-res construction volume was $2,700,000. Additional income was generated by land sales ($1,100,000), rental income and management fees ($2,000,000), escrow and processing fees and construction contract income ($3,300,000). Builds exclusively in Calif.
388 **$26,080**	—	310 251 units	**Deck House Inc.** 930 Main St. Acton, Mass. 01720 William J. Berkes	In the fiscal year ended 9/30/88, this privately held company manufactured 251 single-family panelized units for a total sales volume of $17,100,000. Company developed 20 units for self for sales of $6,400,000. Additional income was received from land sales ($980,000), kitchen cabinets and other accessories ($1,600,000). Builds in Mass. (25%), Va. (10%), Md. (8%), N.Y. (8%), N.C. (8%), Pa. (8%), N.J. (8%), N.H./Vt. (5%), Conn. (5%), Ill. (5%) and other areas (10%). In 1988, Deck House introduced the Calibre Collection and started distribution in Japan, Israel and the Caribbean.
389 **$26,000 est.**	391	316 243 units est.	**John C. Heers Inc.** 1450 E. Cooley Dr. Colton, Calif. 92324 John C. Heers	*Professional Builder* estimates that in 1988, this privately held company built and sold 243 single-family detached homes for an estimated $26,000,000.
389 **$26,000**	—	297 274 units	**Kravco Co.** 234 Goddard Blvd. King of Prussia, Pa. 19406 Joseph C. Esposito	Privately held company in calendar year 1988 built 274 apartments for its own investment, having a market value of $16,000,000. Non-residential construction volume was $10,000,000. Units averaged 1000 sq. ft. and rented for an average of $700 a month. All residential work is in N.J. Company also builds retail projects in Ohio, N.Y. and Pa. Hamilton Greene, Mays Landing, N.J. is one of Kravco's most recent projects.

THE 400

Lundgren Brothers is large Minnesota builder, Circle T Corp. ranks 400th among the Giants

RANK BY REVENUES $ (000)	LAST YEAR'S RANK	RANK BY UNITS	COMPANY, ADDRESS, PRINCIPAL OFFICER	OPERATING PLAN
391 $25,850	—	**280** 301 units	**Homestead Properties** 1820 S. Canal Drive Homestead, Fla. 33035 Ami Tanel	In the fiscal year ended 2/28/89, this privately held company built 90 single-family detached homes for $8,100,000 and 211 single-family attached homes for $12,300,000. Non-residential construction volume was $4,000,000. Land sales brought in $1,000,000 and rental income and management fees totaled $450,000. Detached units averaged 1766 sq. ft. and sold for an average price of $100,000. Attached units averaged 1414 sq. ft., average sales price was $72,900. Apartment condos averaged 1209 sq. ft. and sold for an average price of $58,300. Operates only in Fla.
392 $25,639	—	**346** 188 units	**Hearndon/Rosewell Cos.** 2010 Old Greenbrier Rd. Chesapeake, Va. 23320 William Hearring/Paul Farrell	Privately held company in calendar year 1988 built 155 single-family detached homes for $15,034,079, and 33 single-family attached homes for $2,079,000. Balance of income was generated by land sales ($2,926,182), rental income and management fees ($3,960,420), tidewater grading ($1,153,000) and realty ($487,000). Detached units averaged 1850 sq. ft. and sold for an average price of $107,000. Attached homes averaged 1200 sq. ft. and sold for an average price of $63,000. Builds in Va. (80%) and N.C. (20%).
393 $25,565	—	**176** 630 units	**Nationwide Homes Inc.** P.O. Box 5511 Martinsville, Va. 24115-5511 Mr. Fredric J. Betz	In calendar year 1988, this subsidiary of Insilco Corp., Midland, Texas, manufactured 606 single-family modular units for $24,000,000 in sales, and 24 multifamily modular units for a sales volume of $1,000,000. Rental income and management fees totaled $22,725, and interest income totaled $542,625. Detached units averaged 1500 sq. ft., apartment condos averaged 1150 sq. ft. Nationwide ships to 11 states from its facilities in Va. In 1988 parent company Insilco was aquired by Wagner-Brown of Midland, Texas.
394 $25,561	—	**205** 530 units	**Holiday Builders Inc.** 1901 S. Harbor City Blvd. #806 Melbourne, Fla. 32901 Larry Sietsma	Privately held company in calendar year 1988 built 530 single-family detached houses for $25,561,406 in sales. Homes averaged 1256 sq. ft. and sold for an average price of $50,238. Families with children bought 37% of the units, retirees, 26%, young married couples without children, 19%, empty nesters, 12% and singles, 9%. Operates only in Fla. Major markets include Melbourne, north Orlando, Vero Beach and Fort Pierce.
395 $25,125	—	**293** 280 units	**Lan Ron Builders** 23041 Avenida dela Carlota 175 Laguna Hills, Calif. 92653 Grover C. Brown Jr.	In calendar year 1988, this privately held company built 280 single-family detached homes for $22,000,000 in sales. Rental income and management fees brought in an additional $3,125,000. Units averaged 1500 sq. ft. for an average price of $84,166. Sales were 60% to retirees, 15% to young married couples without children, 10% each to singles and families with children, and 5% to empty nesters. Operates in Calif. (50%) and Fla. (50%). Recent projects include Starlight Homes, Victorville, Calif. and Pine Lakes Country Club, Fort Myers, Fla.
396 $24,930	—	**389** 66 units	**S & Z Development Co.** 2001 N. Halsted St. Chicago, Ill. 60614 Richard L. Zisook	Privately held company in calendar year 1988 built and sold 66 single-family attached homes for $23,880,000. Rental income and management fees totaled $1,050,000. Units averaged 2500 sq. ft. and sold for an average price of $360,000. Buyers were 30% singles, 30% young married couples without children, 30% empty nesters and 10% families with children. Builds exclusively in Ill. Recent Chicago townhouse projects include Beekman Place and Eugenie Terrace. Employs 6 to 10 people.
397 $24,662	—	**379** 109 units	**Drewer Homes** 4510 Daly Dr. #100 Chantilly, Va. 22021 Milton L. Drewer III	In calendar year 1988, this privately held company built 67 single-family detached houses for $18,376,107 in sales, and 42 single-family attached houses for $6,286,705 in sales. Other sources of income, including interest, generated $45,807. Detached units averaged 2600 sq. ft. and sold, on average, for $274,270. Attached units averaged 1300 sq. ft. and sold for an average price of $149,683. Operates only in Va. Recent projects include Crosspointe, Ashburn Farm and Little Rocky Run.
398 $24,500	—	**363** 150 units	**Republic Development** 1467 N. Wanda #155 Orange, Calif. 92667 Jack Hartung	In calendar year 1988, this privately held company built 150 single-family detached homes for $24,000,000 in sales. Balance of income was generated by land sales ($500,000). Homes averaged 1850 sq. ft. and sold for an average price of $160,000. Families with children bought 50% of the units, young married couples without children, 20%; singles, 10%; empty nesters, 10%, and retirees, 10%. Builds exclusively in Calif. A subsidiary of Hillman Properties, the company acquired land in 1988 for large projects in Carlsbad, Corona and Upland.
399 $24,000	—	**370** 130 units	**Lundgren Bros. Construction Inc.** 935 E. Wayzata Blvd. Wayzata, Minn. Peter Pflaum	In the fiscal year ended 12/31/88, this privately held company built 130 single-family detached houses for $24,000,000. Homes averaged 2200 sq. ft. and sold for an average price of $180,000. Families with children accounted for 80% of sales. Young married couples without children bought 15% of the units and empty nesters, 5%. Builds exclusively in Minn. Company employs 21 to 50 people.
400 $23,875	—	**302** 267 units	**Circle T Corp.** 610 E. 17th St. Santa Ana, Calif. 92701 Harry Tancredi	Privately held company in the fiscal year ended 6/30/89 built 267 apartments for its own investment, having a market value of $17,000,000. Non-residential construction volume was $1,500,000. Balance of income was generated by land sales ($875,000) and rental income and management fees ($4,500,000). Apartments averaged 600 sq. ft. and rented for an average of $600 a month. Operates only in Calif. Recent projects include apartments for seniors in Norwalk and a commercial convenience center in Orange.

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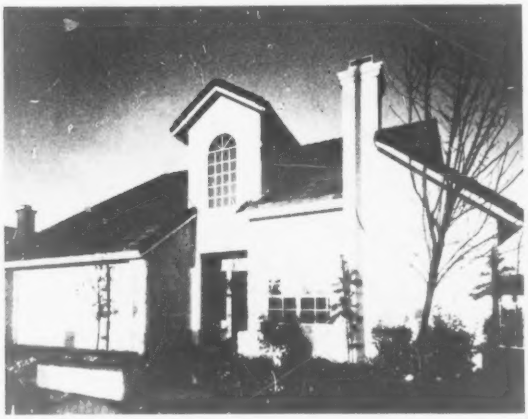

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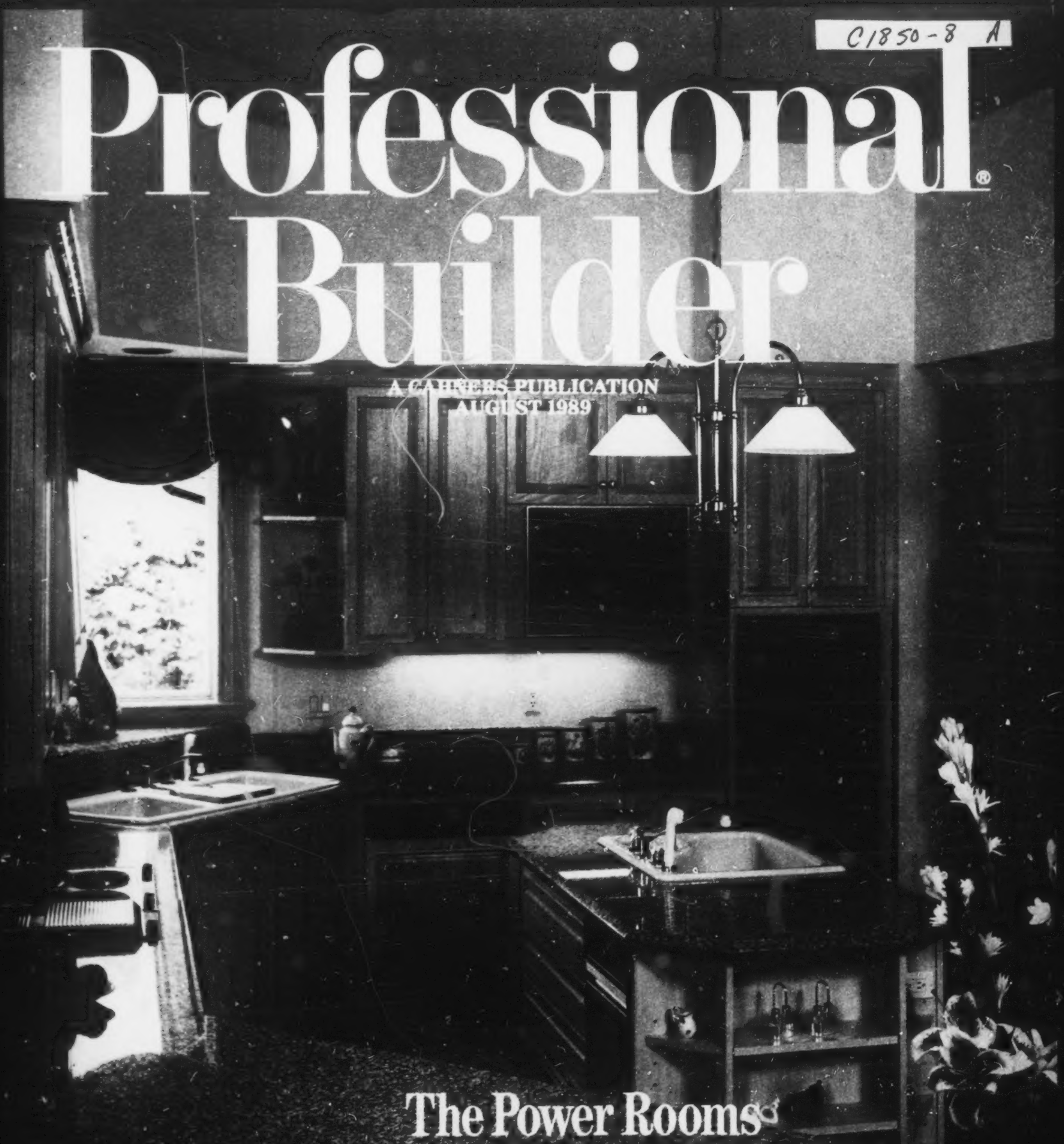

The Power Rooms

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How To Succeed With Vacation Homes

Congress Acts On Mortgage-Revenue Bonds

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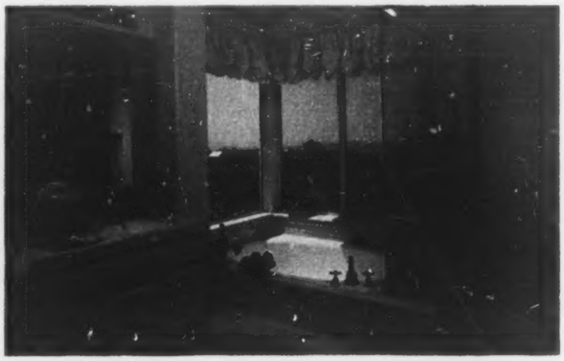

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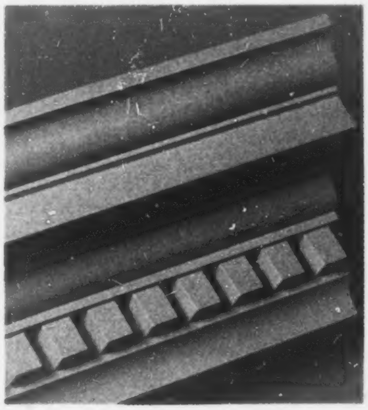

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Top home building markets for 1990

Metropolitan areas in California will continue to dominate the top U.S. residential construction markets through 1990. A just-released report by Cahners Economics shows five California metropolitan areas to be in the top 10. The top three spots on the list are held by California areas.

This dominance is not surprising considering California has accounted for almost one in four of the housing permits issued nationally so far this year. Florida has accounted for an additional 11 percent of housing permits to date, and Orlando is on the top 10 list for the first time since Cahners began projecting top markets.

In recent years, Florida has contained a high proportion of the top-growth markets for home building, but it fell into the second tier when considering absolute levels of construction. Years of strong growth have pushed several Florida markets into the first tier. Orlando, West Palm Beach/Delray Beach, Tampa/Clearwater, Miami/Hialeah and Fort Lauderdale/Pompano Beach are all projected to be in the top 25 U.S. markets in 1990.

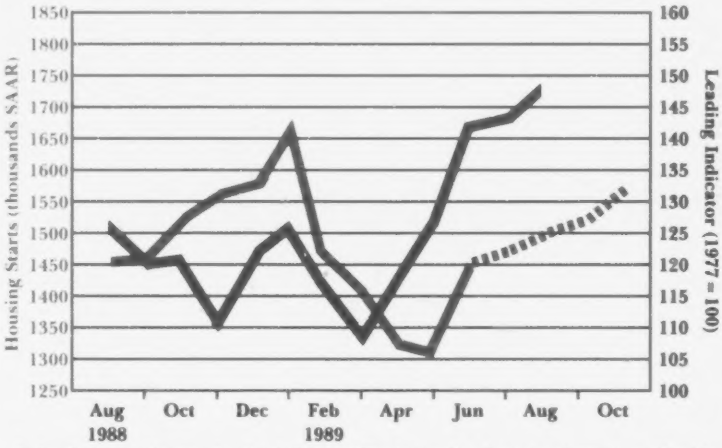
While housing starts are down about 4 percent this year, and permits a bit more, builders that do business in the top markets generally are not seeing lower levels of activity. To the contrary, the value of housing permits is up an average of 12 percent this year from a year ago for the top 10 markets, with seven of the markets showing increases in permit values. Oakland leads the pack with a 39 percent increase.

Most of the top West Coast markets have seen increases in construction activity this year, which reflects strength in the regional economy. An improvement in the foreign trade picture has been the principal source of economic strength nationally over the past 18 months.

Much of this trade improvement has been with Pacific Rim countries, due to the inflation of most Pacific Rim currencies relative to the dollar. □

By Kermit Baker, Cahners Economics, Newton, Mass.

Professional Builder Leading Indicator Of Housing



Broken line denotes forecast. Leading Indicator of Housing predicts short-term changes in residential construction over approximately the next quarter. Latest figure is based on July data and includes the Standard and Poor's home-builder stock index, 90-day T-bills, bank reserves, consumer confidence index and the ratio of homes for-sale to those sold. Prepared exclusively for PB by Cahners Economics.

Top 10 Home Building Markets - 1990

1. **Los Angeles/Long Beach**
2. **Riverside/San Bernardino**
3. **San Diego**
4. **Seattle**
5. **Sacramento**
6. **Chicago**
7. **Washington D.C.**
8. **Atlanta**
9. **Oakland**
10. **Orlando**

Source: Cahners Economics

Top 10 States For Residential Construction - 1989
(Based on year-to-date permit values)

	% of total permit values		% of total permit values
1. California	23.91%	6. Illinois	3.63%
2. Florida	11.17	7. Texas	3.63
3. Virginia	3.91	8. Georgia	3.38
4. New York	3.70	9. Ohio	3.14
5. Pennylvania	3.64	10. North Carolina	3.00

Source: U.S. Dept. of Commerce

BUSINESS/FINANCE

Will Mortgage Revenue Bonds Fade Into The Sunset?

If the Bush administration is serious about affordable housing, it should get behind the mortgage revenue bond programs.

By David Heinly, Senior Editor, Washington Bureau

Lobbyists were cautiously optimistic as Congress adjourned for the Independence Day recess that they had ample support to extend the mortgage revenue bond program. But unless Congress votes an extension this year, the program will end Dec. 31.

The Senate Finance Committee was not expected to take up the reconciliation legislation until the House has acted, probably not before mid-August.

The bond program allows state and local governments to issue tax-exempt bonds to finance home mortgages at below-market rates.

The MRB program, in place since 1970, has evolved as the core of a number of state and local low-income housing programs. Coupled with FHA, VA and, in some cases, conventional mortgage lending, many state housing finance agencies have developed programs for low-income and first-time buyers providing mortgages typically at rates of 2 percent below market and as much as 4 percent below market.

Typical MRB Profile

Average purchase price:	**$60,199**
Average mortgage amount:	**$55,029**
Average term:	**29 years**
Average downpayment:	**$6,364**
Average borrower income:	**$27,251**

Source: National Council of State Housing Agencies

Supporters must defuse a General Accounting Office report that found that for every $1 billion in mortgage revenue bonds issued by state and local governments, the Treasury "loses" about $150 million. In other words, that's how much revenue that is not collected because of the MRBs' tax-exempt status.

Factoring in the effect of recent changes in program rules, which include a volume cap on the amount of tax-exempt securities each state may issue, the Treasury has estimated that the program will "cost" the government in lost revenues about $400 million if it is extended to 1992 and if every state uses its full volume allowance; a "worst case" scenario from the Treasury's point of view.

Advocates of the program argue that measuring it only in terms of the "cost" of "lost revenues" is grossly misleading.

Mark Tipton, vice president and treasurer of the National Association of Home Builders, told the Senate taxation subcommittee earlier this year that "the cost of the MRB program is greatly misrepresented . . . The home building industry will generate more than enough in new revenue to pay for the program."

The National Council of State Housing Agencies, or NCSHA, points out that every $1 billion in tax-exempt MRBs issued by state and local governments provides financing for about 9250 newly constructed single-family homes which, in turn, generates 2,000 jobs and nearly $100 million in tax revenues, including about [illegible]5 million to the federal government.

Roughly an equal number of existing home sales are also financed by that same $1 billion of issues, says NCSHA, implying additional revenues generated by a move-up housing market.

Since the inception of the MRB program in 1970 through 1987, NCSHA reports that some $49.4 billion in bonds were issued by the 50 states, providing more than 954,000 below-market mortgage loans.

The "loss" estimates by GAO and Treasury are flawed in other respects, as well, advocates argue. Enactment of the alternative minimum tax in 1986 has effectively raised the yield investors require from the bonds relative to other investments, thus making them less attractive, says NAHB's Tipton.

By implication, it is also "misleading" to assume states will use the full volume per capita cap imposed on tax-exempt "public purpose" bond issues.

Likewise, NCSHA points out that the Treasury's estimated loss "assumes that future investors will necessarily displace the most highly taxed item in the purchasers portfolio with the tax-exempt bond" and is "questionable" since other tax-saving investments are available.

The estimates also fail to recognize that some investors will purchase bonds out of savings, rather than converting taxable assets. In such cases, the council points out, "there can be no revenue loss and in fact revenues will increase as a result of economic activity that would not otherwise have occurred."

The whole idea behind the MRB program and its more recent adjunct, the Mortgage Credit Certificate program, is to enable state and local housing finance agencies to provide below market rate financing for first-time home buyers.

The MCC program allows states to exchange MRB authority for certificates which entitle eligible first-time buyers to a non-refundable federal income tax credit, typically about 20 percent.

While some opponents, including the GAO, have favored use of MCCs over MRB-financed loans, local housing agencies say MCCs are, at best, a "soft" alternative. They offer little help to lower income home buyers who have a very limited tax liability and, says NCSHA, they lack an effective targeting mechanism.

While the MRB program was subject to criticism in its earlier phases, due largely to loose and poorly written rules, Congress has tightened targeting criteria in recent years to assure that the benefits are going to those most in need; namely first-time buyers.

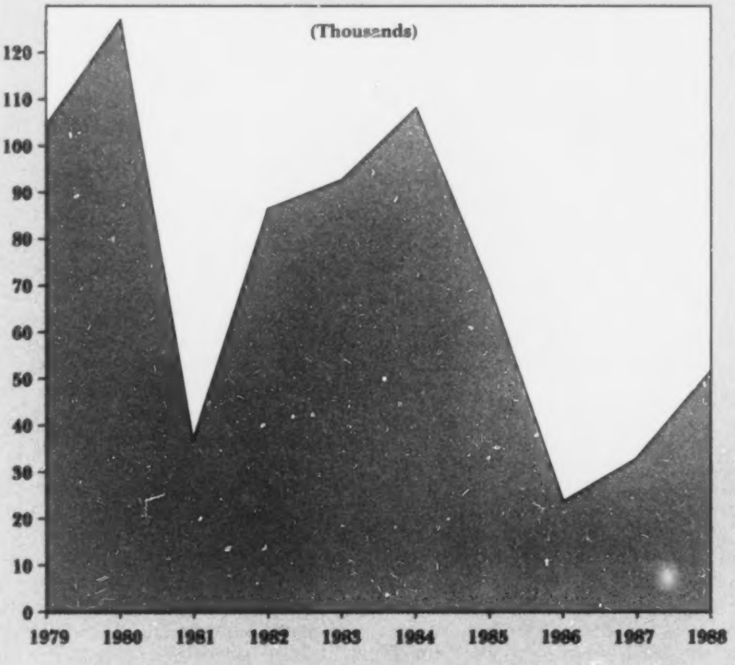
Tinkering with the nation's tax laws in recent years, for MRBs and everything else, has produced a kind of roller coaster record for MRB-financed housing. The program peaked in 1980, financing the production of 123,522 new single-family units as well as the purchase of another 185,282 existing units, according to NAHB.

By now all the arguments for and against MRBs are a familiar story on Capitol Hill, so familiar in fact that, as lawmakers prepared to take up the issue in late July, no further hearings were deemed necessary.

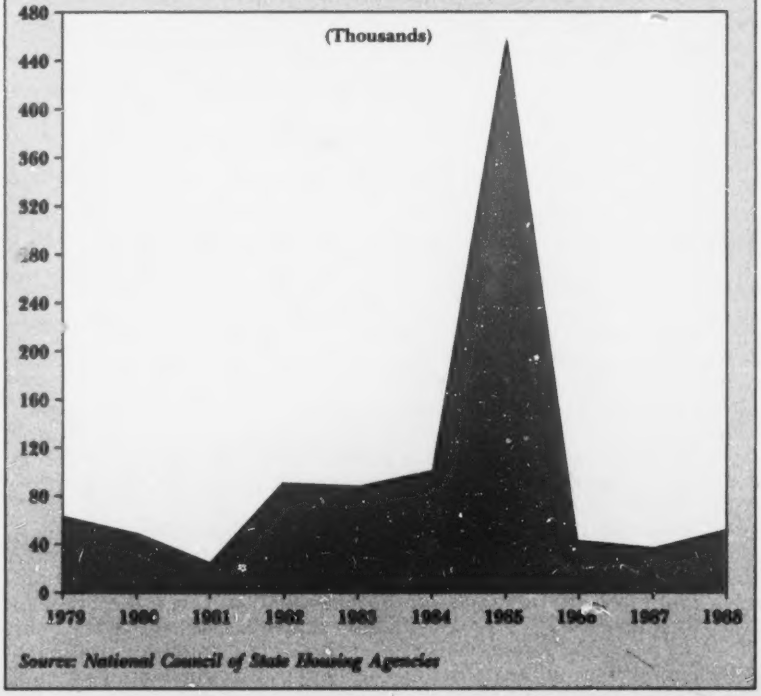
"As many of my colleagues know," said Sen. Riegle in urging support for his bill, "MRBs (help) to ease the problem of housing affordability for many young families seeking to purchase their first home."

While a clear majority of both the House and Senate seem to agree with NCSHA officials who say "there is no real alternative or replacement for the MRB program," whether lawmakers can find a way to extend the program without fracturing their self-imposed budget constraints remains to be seen. □

New Single-Family Homes Financed By Mortgage-Revenue Bonds



New Multifamily Rental Units Financed By Industrial Development Bonds



Source: National Council of State Housing Agencies

REMODELING

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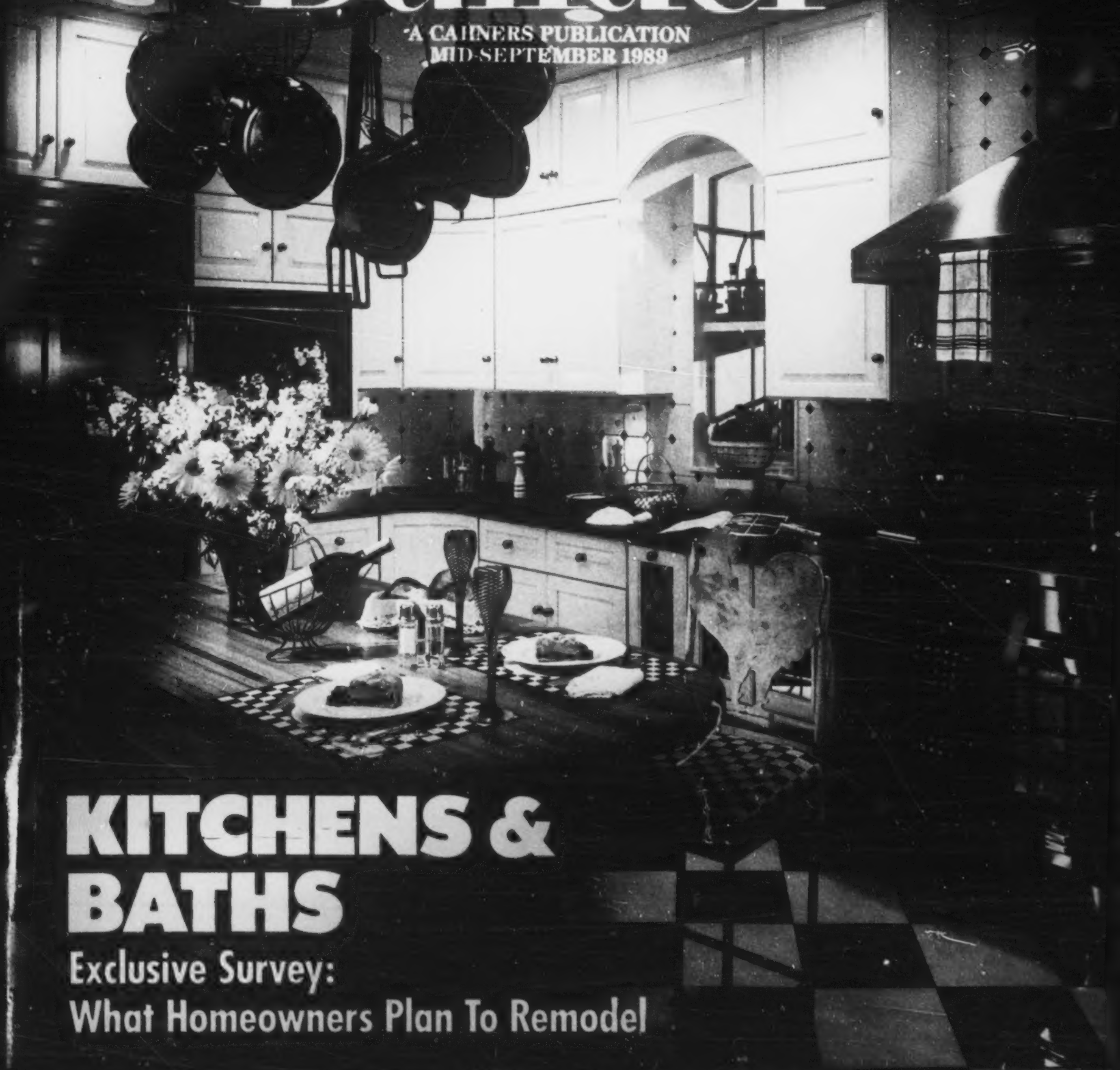

KITCHENS & BATHS

Exclusive Survey:
What Homeowners Plan To Remodel

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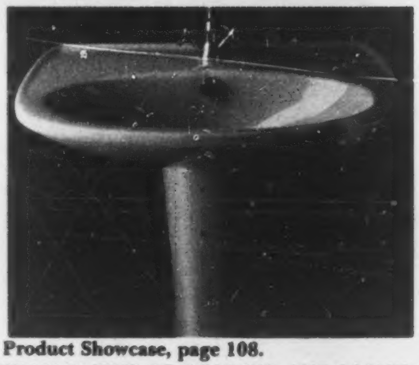

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In a first-of-its-kind survey, consumers tell what they want from a remodeling contractor and what they want their remodeled homes to look like. Their answers provide insight into how they pick contractors and can help builders plan business strategies.

Rooms With A View/88

Time was, kitchens and baths merely needed to be functional. Times have changed. Five remodeling projects show how builders turned plain old wetrooms into exciting spaces that bring the outdoors in.

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Homeowners want a personal stamp of uniqueness on their remodeled wetrooms. This feature illustrates how a greenhouse kitchen, spa or wet bar will make remodeling special.

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THE MAGAZINE OF HOUSING AND LIGHT CONSTRUCTION/A CAHNERS PUBLICATION

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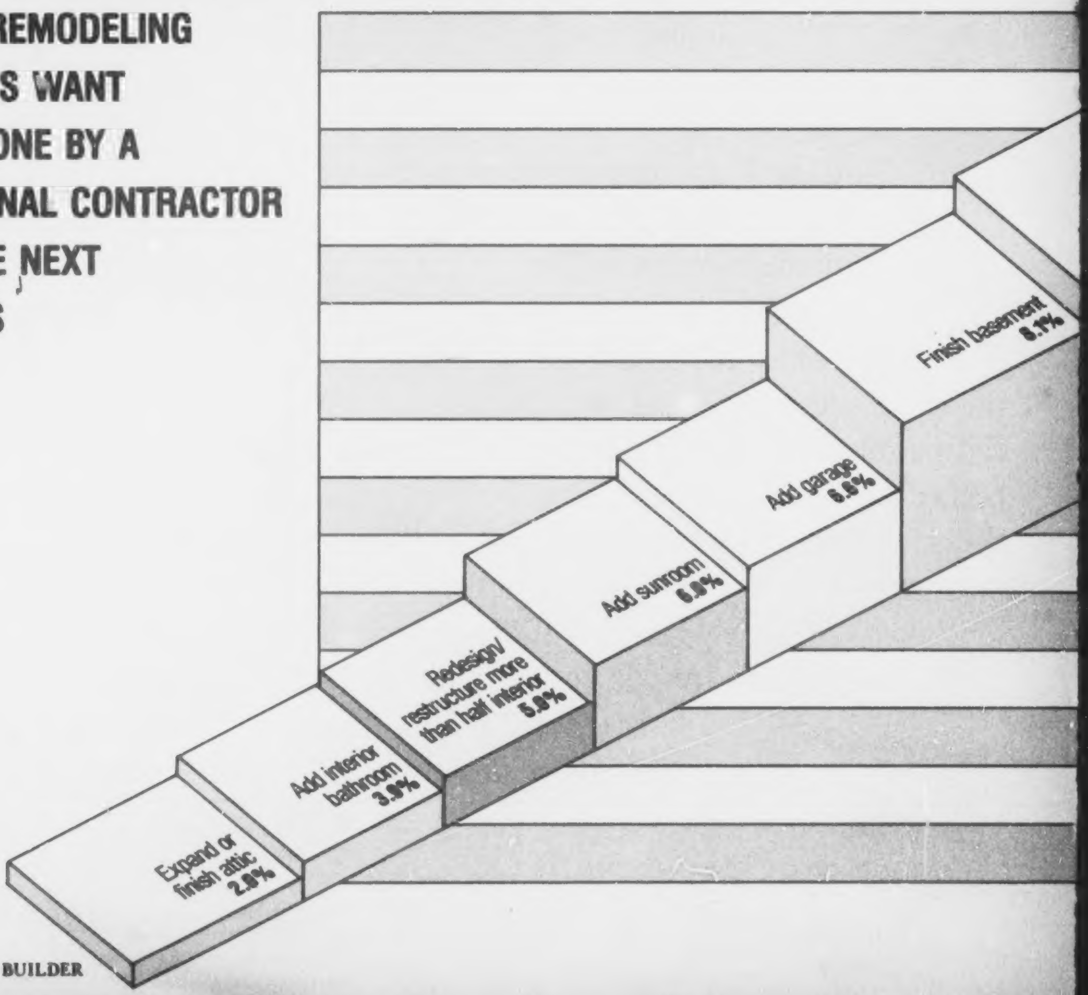
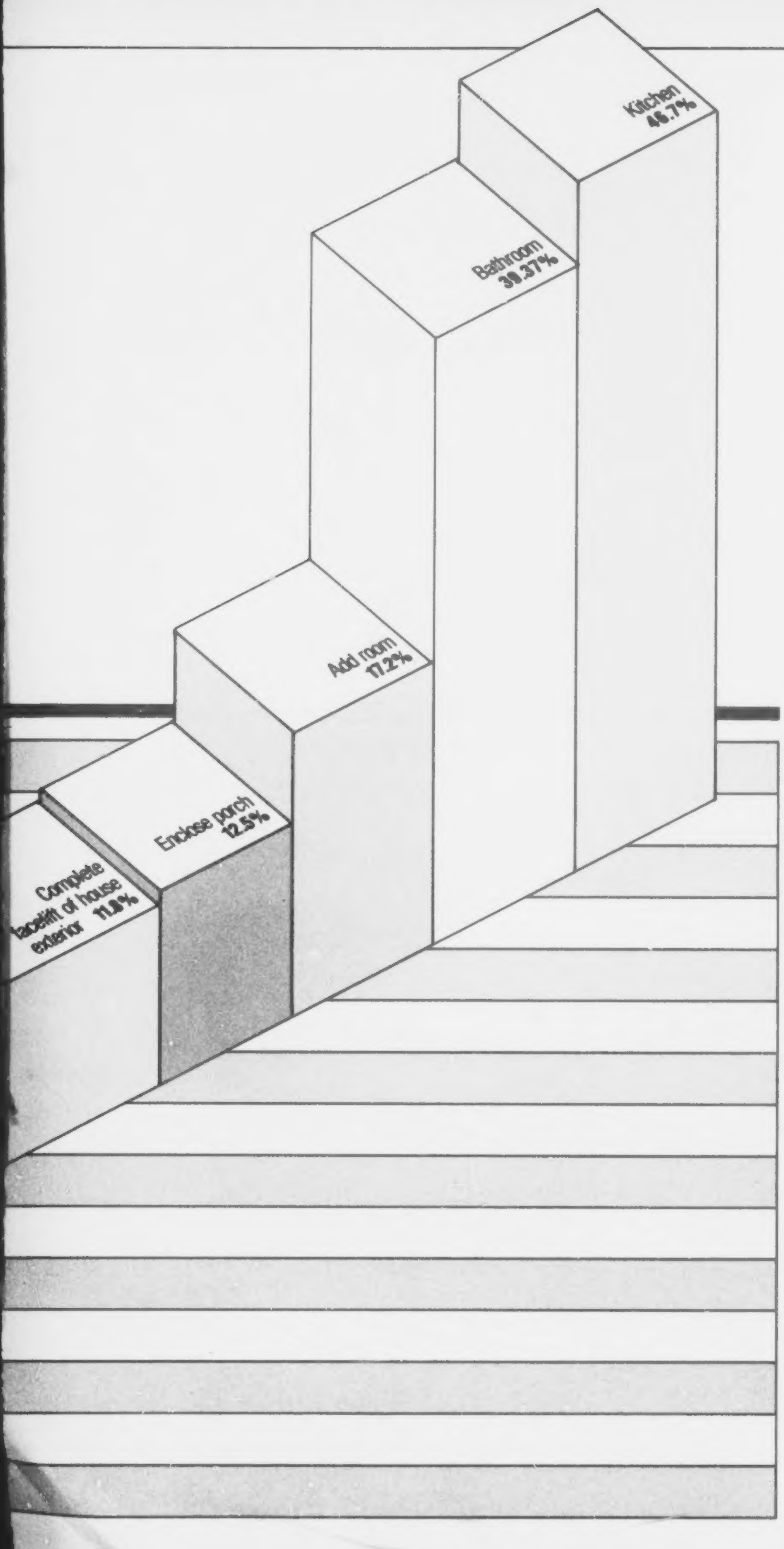
WHAT DO THEY WANT?

AN IN-DEPTH LOOK AT HOW HOMEOWNERS PLAN TO REMODEL THEIR HOUSES

By Christina Farnsworth, Senior Editor

TYPES OF REMODELING CONSUMERS WANT TO HAVE DONE BY A PROFESSIONAL CONTRACTOR WITHIN THE NEXT 12 MONTHS





What do homeowners want from a remodeling contractor? And what do homeowners want their remodeled home to look like?

Professional Builder asked these questions and more of homeowners who said that they planned to remodel their home and planned to hire a professional firm (rather than doing it themselves).

Their answers to all the questions are instructive. Their answers provide a clear picture of their expectations of the cost and time it takes to remodel. Their answers provide insight into how they select a contractor. And their answers reveal who is most likely to be a prospect for a major home remodeling or room addition project. Remodelers can use these responses to write their business plans for the coming year.

This is a landmark survey. *Professional Builder* is the first business magazine to document the needs, wants and preferences of consumers interested in remodeling. National Family Opinion Inc., a nationally recognized consumer research company, Toledo, Ohio, conducted the survey for PB.

But first they had to create a data base of consumers interested in remodeling. NFO queried 40,000 households. Approximately 5.5 percent of these households expressed interest in remodeling in the next 12 months. Then NFO sent out 1589 questionnaires to these qualified households and approximately 80 percent of those queried returned their surveys.

There were 819 usable responses from homeowners who

Complete copies of this exclusive 201-page *Professional Builder* consumer remodeling study are available for $395. Send check or money order to: *Professional Builder*, Post Office Box 5080, Des Plaines, Ill., 60017-5080.

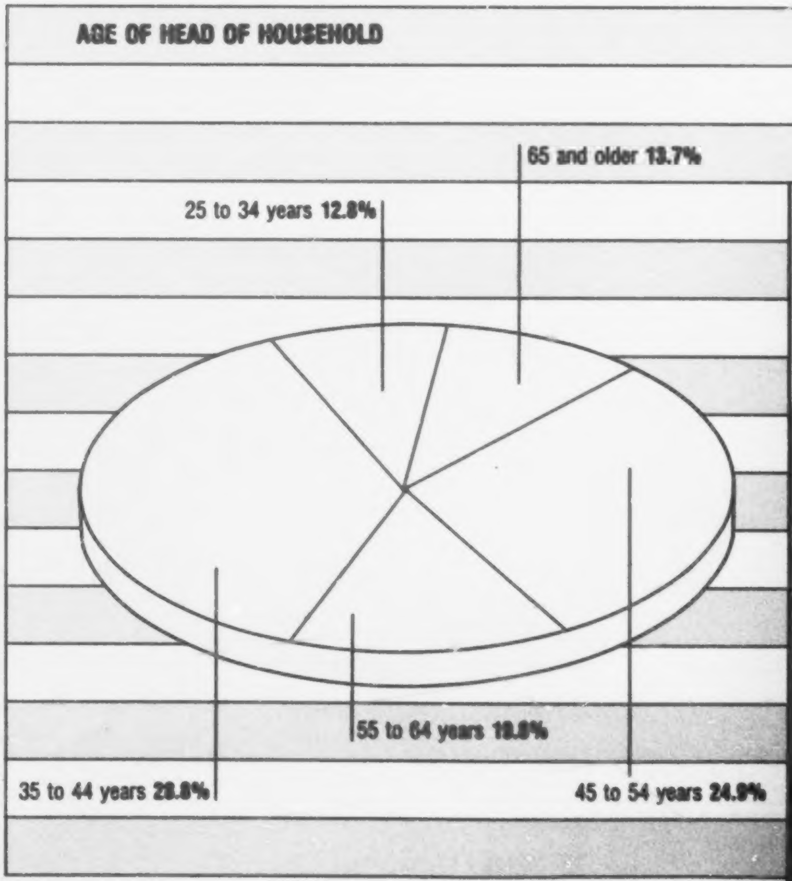
Five criteria help contractors find houses ripe for remodeling

said they definitely intend to hire a professional firm within the next 12 months. (Some responses were disqualified because respondents had just finished a remodeling project or because they were not planning to hire a professional.)

Complete survey results report answers by region of the country, family size, age of the head of household, age of the house, size of the house, length of ownership, market value of the house and household income.

Only some of the survey results are published in this 18-page special report. More results will be printed in future issues of *Professional Builder*.

The survey shows that there is no place like home, albeit the old homestead could stand a little remodeling, respondents admit. The room most likely to be remodeled



AGE OF HEAD OF HOUSEHOLD

is the kitchen followed by the bathroom. But the job that generates the most revenue is a room addition.

Who plans to remodel? Median age of survey respondent is 48 (half are older, half are younger). The mean income of all respondents surveyed is $49,632.

Remodelers can look at five criteria to determine whether a homeowner is likely to remodel or not. Best bets for remodeling of any kind are:

☐ Owners of single-family homes. More than 92 percent of those surveyed live in single-family detached houses.

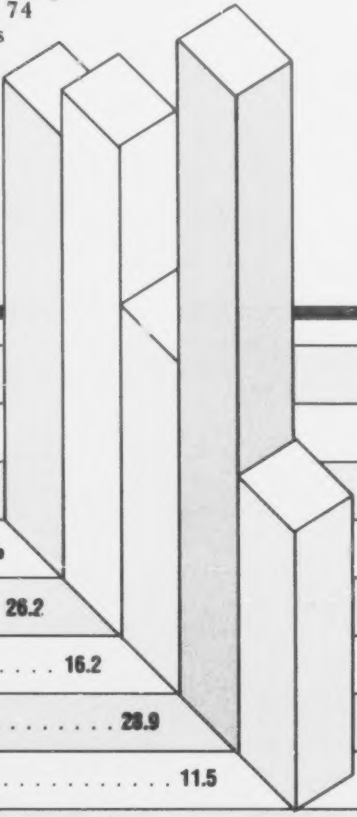
☐ Households with high incomes. Slightly more than 60 percent of respondents earning more than $100,000 a year plan on remodeling their kitchens.

☐ Large households. Just 16 percent of survey respondents live alone.

☐ Older homes. Owners of older homes tend to remodel a kitchen or bath or add a room. Owners of newer homes tend to finish basements and enclose porches.

☐ Large homes. On average, those surveyed live in a 1923-square-foot house.

The most expensive homes tend to be in metropolitan areas of 2 million or more, according to the survey. Almost 74 percent of houses with a market value between $200,000 and $299,999 and 87.9 percent of those with a market value of $300,000 or more are in metro areas of 2 million or more. In rural areas,



MEAN INCOME OF HOUSEHOLD

Less than $24,999	25.7%
$25,000 to $39,999	26.2
$40,000 to $49,999	16.2
$50,000 to $74,999	28.9
More than $75,000	11.5

CITY SIZE

• Non-rural area	21.2%
• 50,000 to 499,999	18.1
• 500,000 to 1,999,999	17.5
• 2,000,000 and over	43.2

Compare estimates with what homeowners expect to spend for remodeling

42.9 percent of the households said their home's market value is less than $65,000.

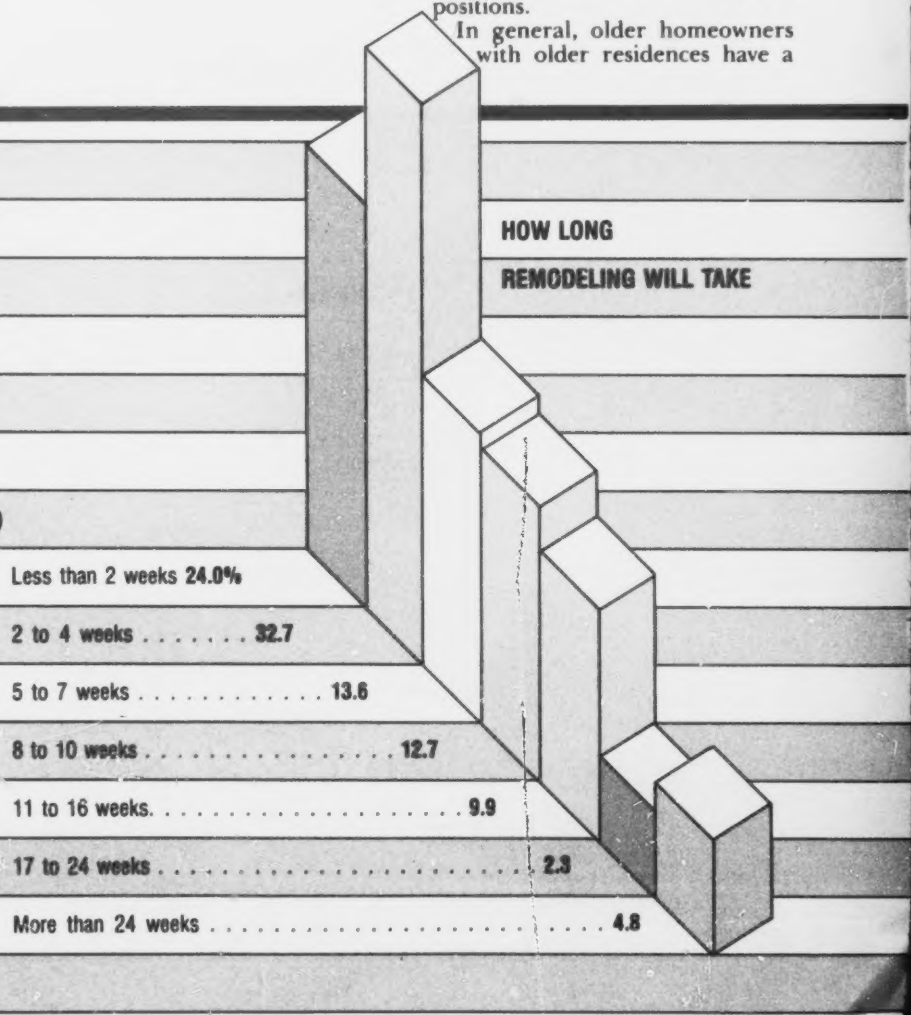
As might be expected, 55.5 percent of households with an income between $55,000 and $99,000 and 72.9 percent of those making $100,000 or more live in the largest cities.

Remodeling prospects tend to hold white-collar jobs. Nearly 34 percent of the male heads of households hold managerial and professional jobs and 12.6 percent hold technical, sales and administrative-support jobs. Among female heads of household, slightly more than 28 percent hold managerial and professional positions and 25.3 percent hold technical, sales and administrative-support positions.

In general, older homeowners with older residences have a

HOW CONSUMERS WILL PAY FOR REMODELING

- Cash (67.6%)
- Home equity loan (25.3%)
- Second mortgage (4.5%)
- Refinance original mortgage (2.9%)
- Other (9.2%)



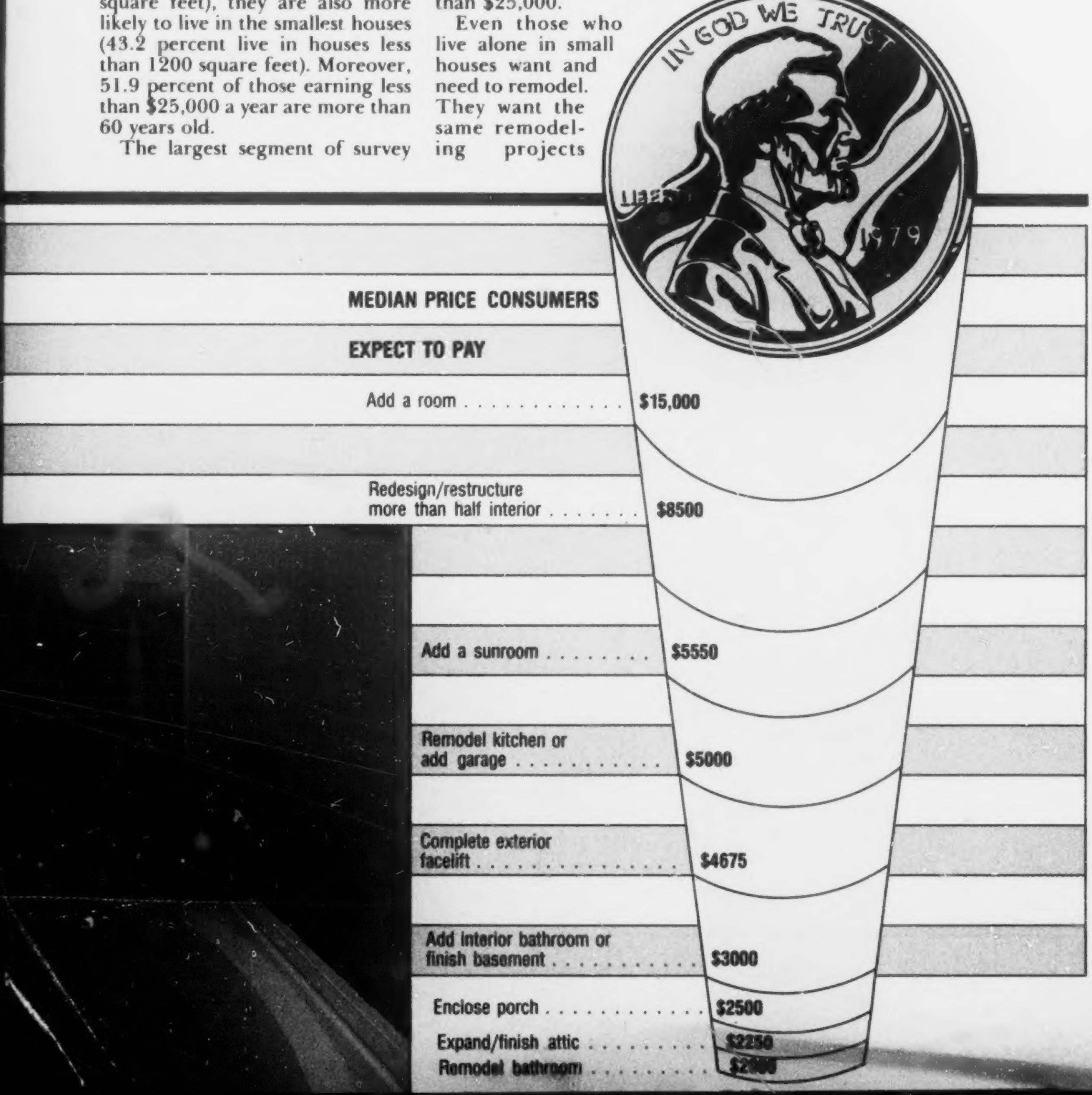
greater interest and desire to remodel. Nearly 42 percent of respondents have lived in their homes for 15 or more years. And of those living in their homes that long, slightly more than 80 percent are 50 years or older. In homes where the head of the household is 60 or older, 26.5 percent are one-person households and 53.1 are two-person households.

Although respondents aged 60 and older are more likely to live in the largest houses (36.1 percent live in houses larger than 2600 square feet), they are also more likely to live in the smallest houses (43.2 percent live in houses less than 1200 square feet). Moreover, 51.9 percent of those earning less than $25,000 a year are more than 60 years old.

The largest segment of survey respondents (36.3 percent) live in two-person households. Slightly more than 20 percent live in three-person households; 15.5 percent live in four-person households and 11 percent live in households of five or more. Sixteen percent of respondents live alone.

Those who live alone are more likely to live in houses with a market value of less than $65,000 (26.1 percent), and in houses that are smaller than 1200 square feet in size (31.5 percent). Among singles, 36.3 percent have a household income less than $25,000.

Even those who live alone in small houses want and need to remodel. They want the same remodeling projects



done as more affluent respondents living in larger households. The key difference is the smaller budget that such one-person households can bring to the project.

For older women living alone, the remodeling may be necessary so that they can continue to live alone.

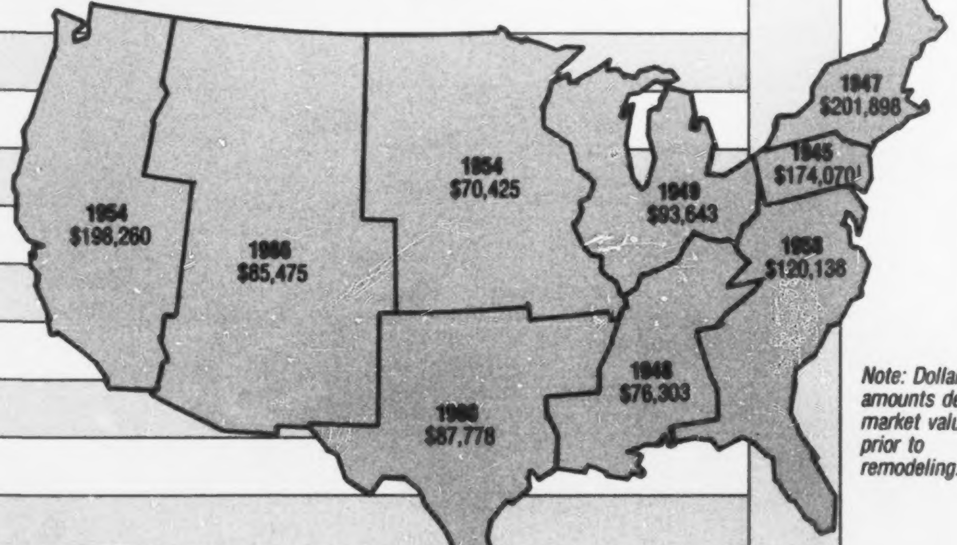
Older homeowners are more likely to pay cash for remodeling work; 81.4 percent of those older than 60 will pay cash. Other means of financing remodeling jobs include: home improvement loans, from company-sponsored credit unions or 401K plans and money borrowed from relatives.

Those surveyed expect that, on average, their remodeling job will take 6.4 weeks. Given that expectation, remodelers are advised to be straight forward with homeowners when jobs actually will take much longer.

As reported previously, kitchens and bathrooms account for the bulk of remodeling activity that homeowners expect to undertake in the next 12 months. About 17 percent will add a room; almost 13 percent will enclose a porch and nearly 12 percent will give the exterior a complete face lift.

Less than 9 percent will finish a basement, add a garage, add a sun room or restructure more than half of the home's interior. Less than 5 percent will add a bathroom (rather than remodel an existing one) or finish their attic. The newer the home, the less interest homeowners have in remodeling

AGES OF HOMES BY REGION IN THE UNITED STATES



Note: Dollar amounts denote market values prior to remodeling.

MARKET VALUE OF HOME PRIOR TO REMODELING

• Less than $65,000	24.9%
• $65,000-$99,000	24.5
• $100,000-$199,000	28.5
• $200,000-$299,000	14.0
• $300,000 and up	8.1

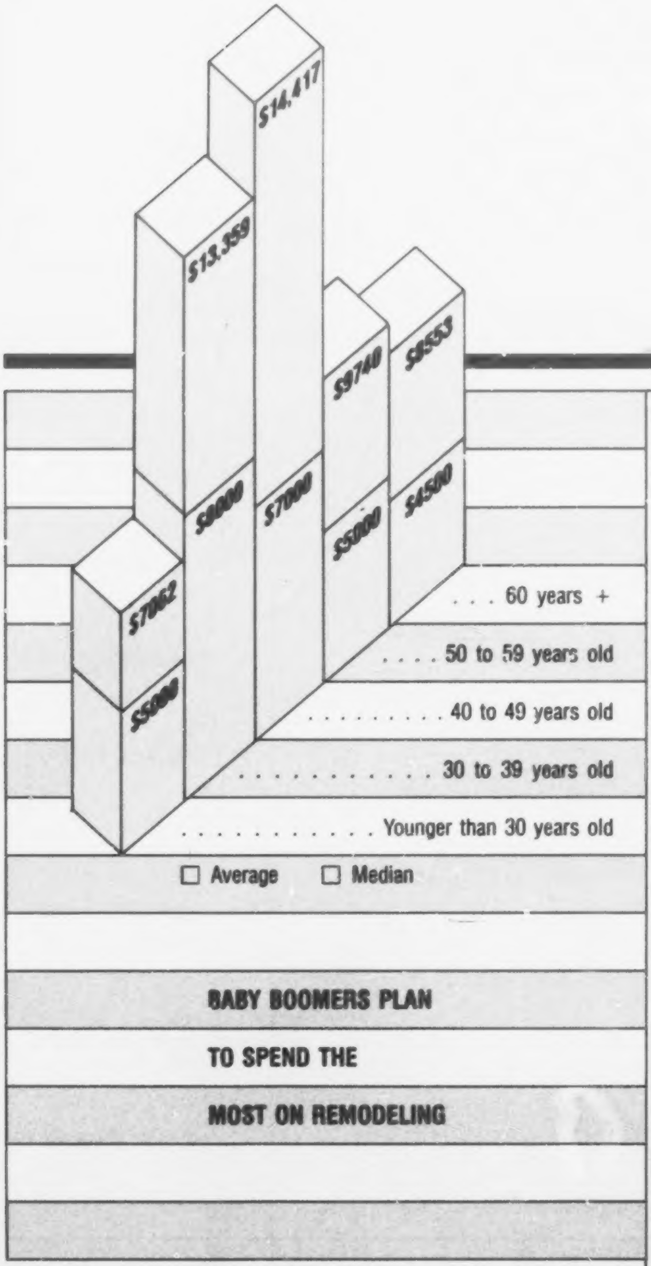
SIZE OF HOUSE BEFORE REMODELING

Square feet	% of respondents
• Less than 1000	4.9%
• 1000 to 1199	9.7
• 1200 to 1499	14.7
• 1500 to 1799	18.5
• 1800 to 2199	20.9
• 2200 to 2599	15.2
• 2600 to 2999	8.3
• 3000 or more	7.8

HOW LONG HOMEOWNERS HAVE LIVED IN HOUSE

- Less than one year, **5.2%**
- 1 to 2 years, **6.5%**
- 3 to 5 years, **17.1%**
- 6 to 10 years, **14.7%**
- 11 to 14 years, **14.4%**
- 15 or more years, **42.1%**

Baby boom households plan to spend the most on remodeling projects



BABY BOOMERS PLAN
TO SPEND THE
MOST ON REMODELING

kitchens or bathrooms. Homeowners living in newer houses are more likely to finish a basement (32.8 percent) or enclose a porch (20.3 percent). Only 18.8 percent of those living in a house that is 8 years old or less plan to remodel their kitchens and only 15.6 percent plan to remodel their bathrooms.

On the other hand, nearly 50 percent of those living in houses 44 years old or older plan to remodel their bathrooms.

/ The higher the market value of the house, the more likely homeowners are to remodel the kitchen. More than 57 percent of those living in houses valued at $300,000 or more plan to remodel the kitchen but 44.8 percent of consumers living in houses valued at less than $65,000 also plan to.

Houses aged 9 to 15 years

COST OF REMODELING PROJECTS BY MARKET VALUE OF HOME (in thousands)

☐ KITCHEN

	Less than $65	$65-99	$100-199	$200-299	$300 plus
Average	$3192	$5057	$7401	$10,378	$18,514
Median	$2300	$4000	$5000	$7500	$10,000

☐ BATHROOM

	Less than $65	$65-99	$100-199	$200-$299	$300 plus
Average	$1739	$2151	$3314	$4679	$7013
Median	$1500	$2000	$2500	$3250	$4000

☐ ROOM ADDITION

	Less than $65	$65-99	$100-199	$200-299	$300 plus
Average	$8139	$15,736	$15,179	$35,281	$36,545
Median	$5000	$10,000	$15,000	$26,250	$25,000

☐ COMPLETE EXTERIOR FACELIFT

	Less than $65	$65-99	$100-199	$200-299	$300 plus
Average	$7920	$5369	$5467	$18,830	$4125
Median	$5000	$4750	$3000	$6700	$4500

☐ ADD SUNROOM

	Less than $65	$65-99	$100-199	$200-299	$300 plus
Average	$5714	$4450	$9833	$6763	$11,5
Median	$4000	$4500	$10,000	$5750	$11

seem prime candidates for room additions—30.1 percent of those surveyed living in such houses plan to add on.

How long homeowners have lived in their houses can determine the kind of job they will undertake. Those who have lived in their homes less than one year are more likely to finish the basement (21.4 percent) or attic (7.1 percent) or add a garage (21.4 percent).

Nationwide, 1961 was the median year in which homes of those surveyed were built (half were built before 1961, half were built after). More than half—53.3 percent of respondents—live in houses built between 1946 and 1973. Newest homes are in the Mountain states.

The median market value of all houses (before remodeling) is $100,783. But the survey found major variations in market value, depending on regions of the country. New England (50 percent) and the Pacific states (33.9 percent) have the most homes valued between $100,000 and $199,000.

There is a strong correlation between market value and size of home. Nearly 60 percent of respondents live in houses that are smaller than 1200 square feet and cost less than $65,000. On the other hand, 51.6 percent of homes larger than 2600 square feet have a market value of more than $200,000.

The median length of time respondents have lived in their homes is 11.9 years. More than 40 percent of homeowners surveyed have lived in their homes for 15 years or more. Length of time varies depending upon region. Home-

EXPECTED COST OF REMODELING PROJECTS BY REGION

KITCHEN

New Eng.	Mid Atl.	East N.Ctrl.	West N.Ctrl.	South Atl.	East S.Ctrl.	West S.Ctrl.	Mtn.	Pac.
$7997	$10,473	$5202	$3103	$6410	$3313	$4315	$7064	$10,860

BATHROOM

New Eng.	Mid Atl.	East N.Ctrl.	West N.Ctrl.	South Atl.	East S.Ctrl.	West S.Ctrl.	Mtn.	Pac.
$5790	$4052	$2161	$1495	$2124	$2106	$2320	$1938	$4376

ROOM ADDITION

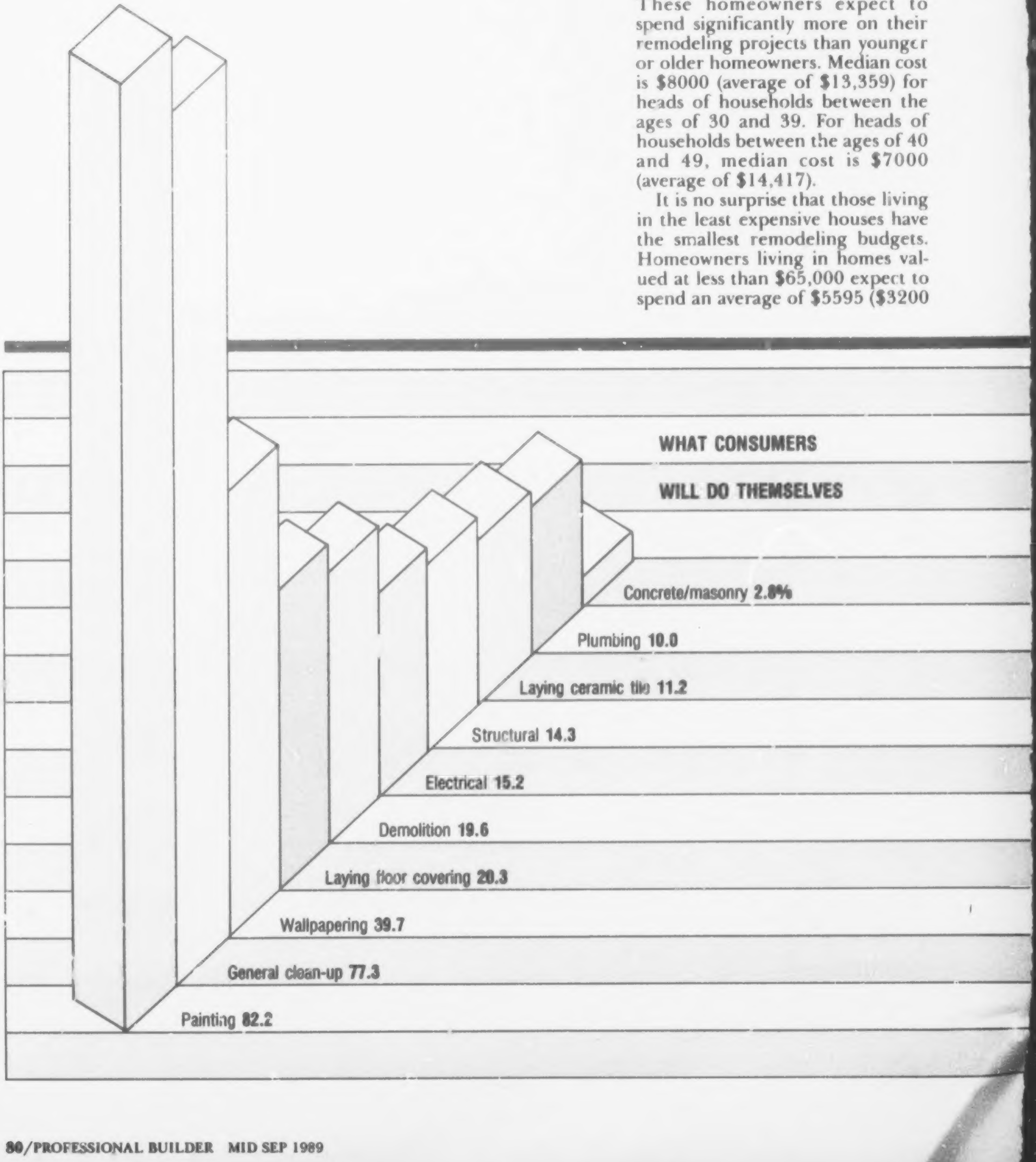
New Eng.	Mid Atl.	East N.Ctrl.	West N.Ctrl.	South Atl.	East S.Ctrl.	West S.Ctrl.	Mtn.	Pac.
$23,287	$28,579	$23,350	$12,400	$18,638	$12,167	$4225	$15,000	$19,448

Homeowners are willing to undertake the painting and the clean up

owners in the East South Central states have lived in their homes the longest; those in the Pacific and Mountain regions have lived in their homes the shortest.

Baby boomers are flexing their economic might. This is a lucrative demographic segment to court. These homeowners expect to spend significantly more on their remodeling projects than younger or older homeowners. Median cost is $8000 (average of $13,359) for heads of households between the ages of 30 and 39. For heads of households between the ages of 40 and 49, median cost is $7000 (average of $14,417).

It is no surprise that those living in the least expensive houses have the smallest remodeling budgets. Homeowners living in homes valued at less than $65,000 expect to spend an average of $5595 ($3200



median) on their home remodeling. Those living in the most expensive houses ($300,000 or more) have the largest remodeling budgets: an average of $28,504 ($15,000 median).

More than two-thirds of all consumers hiring a professional for their remodeling work will hire a builder/remodeler for the jobs. And 37.9 percent say they will hire a subcontractor, 11.4 percent will hire an architect and 12.5 percent will hire other types of firms. (Totals add to more than 100 percent because of multiple responses.)

Of households living in homes with a market value of $300,000 and up, more than three-fourths of consumers will hire a builder/remodeler.

Although those surveyed do plan to hire a professional to undertake the remodeling, slightly more than 53 percent of all survey respondents plan on doing part of the job themselves. Typical do-it-yourself projects are painting (82.2 percent) and clean-up (77.3 percent). Far fewer homeowners plan to tackle structural, plumbing, electrical or concrete work.

The tendency to hire an architect increases with household income and with a home's market value. Less than 2 percent of those with income less than $25,000 and homes with a market value under $65,000 would hire an architect. In contrast, 27.6 percent of those living in houses valued at more than $300,000 would hire an architect.

How homeowners select a remodeling firm is instructive. Word of mouth is the clear winner in how consumers choose their builder/remodeler. A little more

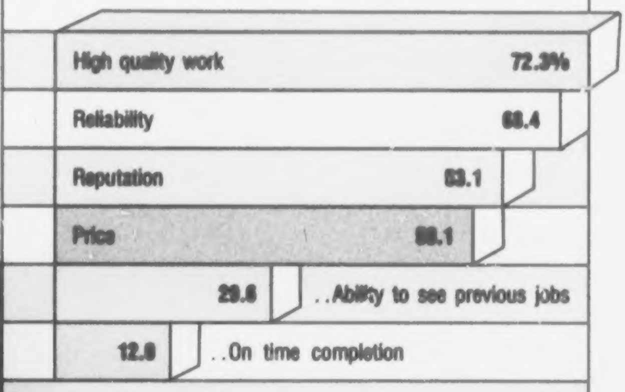
72.1%

OF CONSUMERS CHOOSE A BUILDER/REMODELER BY REFERRALS FROM FRIENDS

WHO HOMEOWNERS WILL HIRE FOR THEIR REMODELING

	All	Home value $300,000 plus
Builder/remodeler	67.3%	75.9%
Sub-contractor	37.9	51.7
Architect	11.4	27.6
Other	12.5	5.2

HOW HOMEOWNERS SELECT A REMODELER



Homeowners have in mind a specific 'wish list' of kitchen products

than 72 percent of those surveyed plan to choose a builder/remodeler based on referrals from friends. Only 7.1 percent choose their remodeler by looking in the Yellow Pages or from newspaper ads. And survey results clearly show that phone solicitation (0.3 percent) and flyers under the door (1.5 percent) are the least effective ways for a builder/remodeler to solicit new business.

Other ways in which homeowners select a remodeling firm include attendance at trade shows, referrals from an architect or retail store or previous business with their builder/remodeler.

As is true in other service industries, quality is important in the remodeling business. People living in expensive homes and those with higher incomes say they are more sensitive to quality when it comes

CHANGES HOMEOWNERS EXPECT TO MAKE IN THEIR REMODELED KITCHENS

		Age of House (years)		
	Total	Less than 15	16 - 43	44 plus
Upgrade cabinetry	81.7%	75.0%	86.1%	75.2%
Upgrade appliance(s)	62.6	57.5	62.6	65.7
Increase cabinet space	59.8	62.5	56.9	65.7
Change the floor plan	35.7	27.5	33.0	44.7
Remove wall(s)	20.8	20.0	19.1	24.7
Expand outside foundation	11.0	7.5	11.0	12.3
Combine with dining room	6.5	7.5	7.1	4.7
Increase ceiling height to add volume	5.6	10.0	5.2	4.7
Combine with family room	5.1	2.5	4.3	7.6
Open to vaulted ceiling	3.7	5.0	3.8	1.9

NEW FEATURES CONSUMERS INTEND TO ADD TO THEIR REMODELED KITCHEN

	All	Home Value $200K plus
Lighting	65.0%	79.4%
Built-in appliances	61.2	74.3
Windows	28.8	42.3
Free-standing appliances	26.2	22.0
Door(s) to outside	19.4	24.3
Utility closet	15.5	19.2
Skylight	13.9	16.6
Breakfast nook	13.3	11.5
Walk-in pantry	10.0	14.1
Second range/oven	10.0	17.9
Laundry area	6.1	3.8
Dividing walls	2.6	6.4

to selecting a builder/remodeler. Of consumers living in homes with a market value of more than $300,000, 81.5 percent based builder/remodeler selection on high-quality of work.

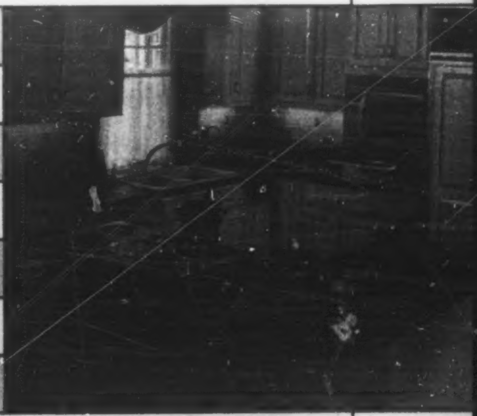
These same households are also less sensitive to price. Only 33.8 percent will choose their builder/remodeler based on price. Interest in the builder/remodeler's on-time completion also rises with market value and household income.

Homeowners do their homework when it comes to design ideas. Those surveyed found ideas in magazines (66.6 percent), in visits to friends' houses (50.9 percent) and from their builder/remodeler (30.7 percent). Only a few reported getting remodeling ideas from newspapers (15.9 percent) and interior decorators (8.3 percent).

The younger the head of the household, the greater the influence of their peers—75 percent of those under age 30 and 59.1 percent of those between 30 and 39 get their remodeling ideas from what they see in their friends' houses.

Magazines play a great role, especially among those high-income households living in larger, more expensive houses. More than 75 percent of those living in houses valued at more than $300,000 and in those larger than 2600 square feet got remodeling ideas from magazines.

Of those consumers who already had selected their builder/remodeler, approximately one-third said that the firm they had selected provided design service. Slightly less than 8 percent of the builder/



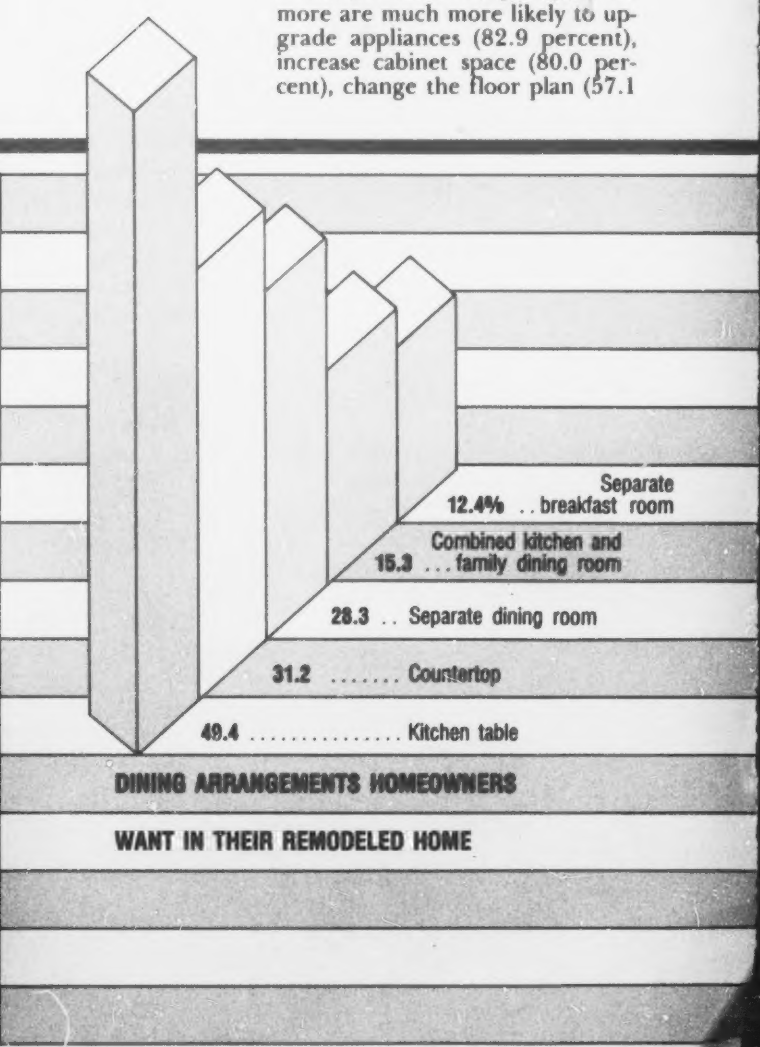
Kitchens need to accommodate more than cooking tasks, homeowners say

remodelers selected by those surveyed offered a decorating service.

Households also look for more than remodeling services from the firms they select. Among higher-income homeowners, more than 40 percent selected builder/remodelers who also provide design services.

In the kitchen, most homeowners expect to upgrade their cabinets. A large number also intend to upgrade appliances and increase cabinet space in their new kitchens.

Consumers will be more likely to upgrade cabinets, appliances and floor plans in more expensive homes. Those living in houses with a market value of $300,000 or more are much more likely to upgrade appliances (82.9 percent), increase cabinet space (80.0 percent), change the floor plan (57.1


Separate
12.4% .. breakfast room
Combined kitchen and
15.3 ... family dining room
28.3 .. Separate dining room
31.2 .... Countertop
49.4 .... Kitchen table

DINING ARRANGEMENTS HOMEOWNERS WANT IN THEIR REMODELED HOME percent) and remove walls (28.6 percent).

Those with a household income of $100,000 and up are more likely to remove walls (29.6 percent), increase ceiling height to add volume (22.2 percent) and vault the ceiling (14.8 percent).

Sixty-five percent of those surveyed plan to improve kitchen lighting. Those living in homes with a market value of $200,000 not only plan to improve lighting, but also are much more likely to add built-in appliances and new windows.

Nearly half of those planning to remodel want to include room for a kitchen table in their new kitchen; only 12.4 percent wanted a separate breakfast room.

Interest in a separate dining room and breakfast room increases as household income in-

TYPES OF KITCHEN LAYOUT

	By home value		By home size	
All	Under $100K	$300K plus	Under 1500 sq.ft.	2600 sq.ft. plus
☐ L-SHAPED				
33.7%	35.9%	27.3%	38.1%	14.8%
☐ U-SHAPED				
29.1	25.1	33.3	23.6	40.7
☐ GALLEY				
21.0	26.6	12.1	27.6	18.5
☐ ISLAND				
16.2	12.2	27.3	10.5	25.9

PRODUCTS INCLUDED IN KITCHEN REMODELING

	Home Market Value in thousands			
	$99 & under	$100 to $199	$200 to $299	$300 plus
WALLS	**76.3%**	**79.1%**	**86.0%**	**88.9%**
Paint	52.0	40.9	49.1	50.0
Wallpaper	43.3	47.3	52.8	52.8
Ceramic tile	9.8	16.4	22.6	30.6
Marble	—	—	1.9	2.8
FLOORS	**76.3**	**80.9**	**75.5**	**91.7**
Vinyl	49.7	51.8	50.9	47.2
Ceramic tile	12.7	19.1	17.0	30.6
Carpeted	12.7	7.3	1.9	2.8
Hardwood	4.6	6.4	9.4	19.4
Marble	1.7	2.4	—	11.1
CABINETS	**75.1**	**75.5**	**84.9**	**88.9**
Wood	34.7	42.7	37.7	47.2
Custom-made	24.3	21.8	35.8	47.2
National manufacturer	13.3	20.0	18.9	30.6
Locally fabricated	11.0	13.6	15.1	16.7
Laminate-faced	12.1	10.9	18.9	5.6
European-style	2.3	7.3	22.6	8.3
COUNTERTOPS	**73.4**	**72.7**	**84.9**	**88.9**
Laminated plastic	23.7	25.5	28.3	13.9
Butcher block	22.0	13.6	9.4	19.4
Solid Corian	12.1	16.4	28.3	27.8
Other	19.1	24.5	30.2	33.3
APPLIANCES	**70.5**	**78.2**	**79.2**	**86.1**
Dishwasher	41.0	50.9	50.9	75.0
Range/oven	32.4	44.5	39.6	58.3
Self-cleaning oven	27.7	30.0	39.6	55.6
Built-in oven	24.0	31.8	47.2	50.0
Garbage disposal	26.0	27.3	32.1	47.2
Refrigerator	24.9	31.8	24.5	19.4
Built-in microwave	17.9	27.3	34.0	50.0
Built-in refrigerator	9.2	8.2	17.0	30.6
Trash compactor	5.8	11.8	13.2	16.7
Appliance garage	2.9	6.4	5.7	13.9
Hot water dispenser	2.3	3.6	7.5	19.4
BBQ grill	1.7	3.6	5.7	19.4
Restaurant range	1.7	1.8	1.9	80.6
SINKS/FAUCETS	**62.4**	**68.2**	**75.5**	**80.6**
Double sink	39.3	37.3	39.6	50.0
Single-handle faucet	23.7	32.7	47.2	55.6
Stainless steel	34.1	37.3	22.6	36.1
Enamel/porcelain	17.9	14.5	34.0	33.3
Water saving faucet	11.6	10.0	18.9	13.9
Two-handle faucet	12.7	10.9	9.4	11.1
Second sink	4.0	7.3	5.7	16.7
Colored faucet	0.6	3.6	9.4	16.7
Triple sink	1.7	5.5	—	11.1
LIGHTING	**52.6**	**52.7**	**81.1**	**77.8**
Fluorescent	34.1	28.2	47.2	36.1
Recessed	19.1	26.4	30.2	38.9
Track	6.9	10.0	15.1	25.0
WINDOWS	**34.1**	**40.9**	**52.8**	**63.9**
Exterior	17.9	19.1	34.0	27.8
Greenhouse	7.5	18.2	7.5	19.4
Skylight	6.9	11.8	18.9	5.6
Bay	5.8	7.3	7.5	19.4
Doors	23.7	27.3	30.2	30.6
Exterior	22.0	19.1	18.9	19.4
French	1.7	9.1	11.3	11.1
ISLAND	**19.1**	**18.2**	**15.1**	**27.8**
With work and eating space	14.5	10.0	5.7	13.9
With countertop	6.9	9.1	15.1	16.7
With sink	3.5	5.5	3.8	13.9
MISCELLANEOUS	**53.2**	**66.4**	**62.3**	**80.6**
Ceiling fan	24.9	26.4	18.9	38.9
Pantry	11.6	22.7	20.8	50.0
Built-in eating counter	15.6	20.9	7.5	13.9
Lazy susan	11.6	15.5	17.0	25.0
Closet shelves	8.7	16.4	22.6	16.7
Insulation	11.0	14.5	15.1	13.9
HVAC system	8.1	11.8	13.2	16.7
Roofing	8.7	10.9	13.2	11.1
Siding	8.1	7.3	11.3	5.6
Laundry/utility closet	5.2	10.9	3.8	5.6
Intercom	2.9	2.7	3.8	5.6
Built-in table	1.2	4.5	1.9	2.8
Thermostats	1.7	1.8	—	8.3
Locksets	2.9	—	—	5.6
Warming drawer	—	—	—	2.8

In the bath, homeowners want upgraded cabinets and storage

creases. Nearly 41 percent of those with an income of $100,000 or more wanted a separate dining room; 25.9 percent wanted a separate breakfast room.

L-shaped kitchens are preferred just slightly more than U-shaped or galley kitchens. Island kitchens are slightly more popular in more expensive and larger homes. More than 40 percent of those who live in homes between 1200 and 1799 square feet prefer L-shaped kitchens. U-shaped kitchens are the choice for more expensive homes and for 46.2 percent of those earning $100,000 or more a year.

Homeowners express a strong preference for wood cabinets in both the kitchen and the bathroom. And they like both paint and wallpaper to finish the walls in their kitchens. Paint, wallpaper and ceramic tile run neck and neck

REMODELING THE BATHROOM

		Age of house in years		
	Total	15 or less	16-43	44 plus
Upgrade cabinetry	81.1%	68.2%	82.0%	83.1%
Increase storage space	47.8	50.0	43.5	52.8
Expand existing bathroom	21.1	40.9	20.5	16.9
Remove walls	19.3	36.4	13.7	22.5
Expand outside foundation	5.3	9.0	4.3	5.6
Increase ceiling height	4.8	4.5	2.6	7.9
Open to vaulted ceiling	2.2	4.5	2.6	1.1
Make a garden bathroom	3.5	4.5	4.3	2.2

as choices for bathroom walls. Interest in ceramic tile and marble in the kitchen increases as the market value of the home increases.

Vinyl flooring is popular in all price ranges. Carpeting is more popular in less expensive homes. Hardwood, tile and marble floor coverings increase in popularity as the market value of the home increases.

In bathroom remodeling, expansion of the space is not as important to consumers as is upgrading cabinetry and increasing storage space.

Results detailing what homeowners expect from room additions will be published in a future issue.

Remodelers can use these kitchen and bath results to meet buyer demands and plan strategies for winning more bids. □

FEATURES HOMEOWNERS PLAN TO ADD IN THEIR BATHROOM

Feature	% of homeowners	Home value $200K plus
Add bathroom to master bedroom	16.0%	27.3%
New secondary bathroom	13.7	15.2
New powder room	9.2	3.0
Laundry	7.6	6.1
Walk-in closet	19.1	17.3
Utility closet	23.7	18.2
Window(s)	35.9	48.5
Skylight	20.6	36.4
Doors	29.0	24.2
Walls	32.8	27.3

PRODUCTS INCLUDED IN BATHROOM REMODELING

	(Home market value in thousands)			
	Under $99	$100 to $199	$200 to $299	$300 plus
WALLS	**87.3%**	**87.2%**	**92.9%**	**69.0%**
Wallpaper	43.9	44.9	57.1	31.9
Ceramic tile	37.6	41.5	42.9	34.5
Paint	40.1	33.3	33.3	31.9
Mirrored	5.1	7.7	7.1	13.8
Marble	0.6	5.1	4.8	3.4
FLOORS	**85.4**	**82.1**	**90.5**	**69.0**
Ceramic tile	24.8	46.2	57.1	41.4
Vinyl	36.9	15.4	16.7	20.7
Carpeted	24.2	23.1	9.5	10.3
Marble	1.9	2.6	7.1	—
Wood	1.9	1.3	2.4	3.4
CABINETS	**74.5**	**67.9**	**81.0**	**72.4**
Medicine	43.9	33.3	38.1	44.8
Wood	29.3	26.9	31.0	44.8
Custom made	17.2	29.5	28.6	34.5
Linen storage	21.0	15.4	9.5	31.0
National manufacturer	17.2	14.1	16.7	20.7
Laminate-faced	7.0	10.3	19.0	10.3
FAUCETS/FIXTURES	**72.6**	**69.2**	**81.0**	**79.3**
Two-handle faucet	33.8	34.6	45.2	51.7
Plumbing fixtures	31.8	33.3	42.9	34.5
Single-handle faucet	30.6	28.2	35.7	31.0
TUB/SHOWER	**64.3**	**70.5**	**59.5**	**65.5**
Tub/shower door	42.7	34.6	31.0	27.6
Water-saving shower heads	29.9	30.8	21.4	17.2
Separate shower	7.6	26.9	26.2	27.6
Whirlpool	3.8	15.4	11.9	20.7
VANITY	**58.6**	**61.5**	**66.7**	**62.1**
With one bowl	51.6	50.0	52.4	41.4
With two bowls	7.0	11.5	14.3	20.7
COUNTERTOPS	**54.1**	**56.4**	**64.3**	**72.4**
Laminate	17.2	17.9	11.9	10.3
Marble	15.9	12.8	16.7	13.8
Ceramic tile	12.1	11.5	14.3	41.4
Corian	11.5	16.7	21.4	13.8
LIGHTING	**48.4**	**39.7**	**50.0**	**31.0**
Fluorescent	24.2	12.8	19.0	20.7
Recessed	14.6	20.5	26.2	17.2
Track	12.7	10.3	11.9	3.4
CLOSETS	**22.9**	**25.6**	**21.4**	**24.1**
Closet shelving	18.5	16.7	19.0	3.4
Walk-in	4.5	14.1	—	20.7
Laundry/utility	5.1	2.6	9.5	6.9
TOILET/BIDET	**21.7**	**19.2**	**21.4**	**31.0**
Compartmentalized	20.4	16.7	21.4	20.7
Bidet	1.3	2.6	2.4	10.3
WINDOWS	**10.8**	**12.8**	**31.0**	**20.7**
Skylight	4.5	7.7	26.2	13.8
Bay	6.6	6.4	4.8	6.9
MISCELLANEOUS	**55.4**	**55.1**	**61.9**	**62.1**
Exhaust fan	33.8	33.3	50.0	41.4
Safety features	19.7	17.9	21.4	17.2
Bathroom heater	12.7	16.7	21.4	24.1
Ceiling fan	12.7	12.8	11.9	10.3
Pedestal lavatory	8.3	10.3	7.1	3.4
Siding	5.1	5.1	7.1	3.4
Roofing	3.2	3.8	7.1	10.3
Dressing area	2.5	5.1	4.8	6.9
Sauna	1.3	1.3	—	6.9
Intercom	1.3	1.3	—	3.4
Fireplace	1.9	1.3	—	—
Garden bath	—	2.6	—	—
Fitness equipment	0.6	—	—	3.4